

U.S.I. JOURNAL

INDIA'S OLDEST JOURNAL ON DEFENCE AFFAIRS

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- Part I - Nuclear Issues.
- Part II - Low Intensity Conflicts (LIC).
- Part III - * Sub Continental Realities.
 - * Serbian Problem.
 - * Management of Change in the Military.
 - * The Challenge of Downsizing.
 - * The Siachen Pioneers.

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NOTE

The views expressed in the Journal are not official and the opinions of contributors and the Editor in their published articles are not necessarily those of the Council of the Institution.

EDITORIAL

This issue of the Journal has been divided into three parts. In part I, nuclear aspects mostly concerning India have been covered. Articles pertaining to nuclear doctrine, strategy, weaponisation, disarmament, command and control and so on have been published. This has been done to accommodate views expressed by a large number of our members regarding the Indian nuclear tests and their effect on international relations.

The lead article is by Shri R Venkataraman, former President of India and former Patron of the USI. The article is titled 'Nuclear Explosion and its Aftermath'. The author has highlighted that both the Non Proliferation Treaty (NPT) and the Comprehensive Test Ban Treaty (CTBT) are arbitrary, unjust and unequal and India did well in not signing them. India has advocated the elimination of nuclear weapons and is genuine about it, whereas the Nuclear Five appear to be paying only lip service. India exploded her first nuclear device in 1974. This test was a protest against the unequal and unjust NPT. India's nuclear tests in May 1998 have broken the monopoly of the Nuclear Powers. According to the author, having pleaded for a total elimination of nuclear weapons, it would be immoral for India to join the nuclear club and have the privilege of increasing the nuclear arsenal. On the contrary India should strive through the United Nations to bring about a treaty on 'No First Use' of nuclear weapons by any of the member states. The Rajiv Gandhi proposal on disarmament fixing 2010 AD for complete elimination of all nuclear weapons should be pursued vigorously by India and like-minded nations.

In Part II of the Journal a number of articles pertaining to 'Low Intensity Conflict (LIC)' have been published. India has been involved with insurgency since the mid-1950s till date from Nagaland to Mizoram and Assam and then to other parts of the country, including Punjab and Jammu and Kashmir. For 51 years India and Pakistan have been neighbours but never friends. Their relationship is scarcely improving. Diplomatic talks have not made much progress. Pakistan, having realised the futility of waging a conventional war against India, left the middle ground and moved

to the nuclear and the LIC spectra of warfare. For the past ten years or so, Pakistan has adopted the low cost option and is waging a 'Proxy War' in Jammu and Kashmir. To discuss this serious issue a panel discussion was held at the USI on 04 Sep 1998. The salient features of the discussion have been compiled by Lt Gen CK Kapur and are contained in the article titled 'Proxy War' published in this issue. With the recent American attack on terrorist camps, Pakistan's involvement in international terrorism has got highlighted. Pakistan's cover over such activities has been blown. India needs to exploit this development to her advantage. All efforts should be made to engage Pakistan in mutual trade and commerce and such like activities. At the same time India should be prepared for war.

Part III of the Journal has articles on other international and national issues. We have a large number of articles, which have not been published due to paucity of space despite adding additional pages to the current issue of the Journal. We will try to publish these articles in our subsequent issues. Members are requested to bear with us.

Nuclear Explosion and its Aftermath

SHRI R VENKATARAMAN

The subject I have chosen viz., "Nuclear Explosion and its Aftermath", is itself more explosive than the nuclear blasts. There is a lot of confusion in people's minds on whether the nuclear tests conducted on 11 and 13 May 1998 by India is moral and necessary or advantageous to the country. Some justifications such as security perceptions put forth by the official side may not be complete or correct.

The first atom bomb was dropped on Hiroshima on 6 August 1945 followed by nuclear bombing of Nagasaki a few days later. This heralded to the world the advent of the Nuclear Age. The Charter of the United Nations was signed on 26 June 1945 and therefore it does take note of the cataclysmic developments threatening the very existence of human species on our planet.

I do not propose to waste time by detailing the horrendous consequences of a nuclear explosion. The tale of horror in Hiroshima and Nagasaki had made Atomic Scientists terrified of the consequences of even their own success. In order to educate the public, they sent lumps of fused sand from the first test site to 42 Mayors of America to educate them on the consequences to their own cities in case of nuclear war.

The position today is that the five nuclear powers, America, Russia, United Kingdom, France and China, have exploded over 2000 nuclear devices so far. Prof Martin Zuberi, a Senior Fellow in Disarmament Studies in Jawaharlal Nehru University, states that the "total yield of these explosions was approximately 629 megatons, the equivalent of about 42,000 bombs dropped in

Excerpted from the text of the talk delivered under the auspices of Dr. PS Lokanathan Memorial Society and the Indian Institute of Technology (IIT) Chennai by Shri R Venkataraman, former President of India, at Chennai on 27 June 1998.

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Hiroshima. They have polluted the oceans, blasted six whole islands into radioactive fallout, poisoned marine life and spread incurable diseases among hapless people in the neighbourhood of their explosions". The scoreboard of testing commencing from the date of each country's first test is as follows :

- (a) United States - one explosion every 18 days.
- (b) Soviet Union - one explosion every 21 days.
- (c) France - one explosion every 61 days.
- (d) China-one explosion every 264 days.
- (e) Britain - one explosion every 331 days.

Where France, Britain and the United States have been observing unilaterally declared moratoriums since 1992, China has continued testing in 1993, 1994, 1995 and even till the Comprehensive Test Ban Treaty came into force.

India has a unique record of adherence to the principles and purposes of the United Nations Charter. True to the objective of preventing succeeding generations from the scourge of war, India has advocated the elimination of nuclear weapons and for a complete and general disarmament. The Super Powers were really paying lip service to the ideology and were never keen on reduction of armaments. For instance, in the Disarmament Commission after the First World War, Britain proposed elimination of submarines under the specious plea that, being concealed weapons, they caused a great deal of human suffering. In reality, the proposal was meant to assure Britain of its naval supremacy. Proposals such as these emanated from interested groups thwarting any real effort at reducing armaments.

In 1954, Britain and France submitted a proposal before the United Nations Sub-Committee on Disarmament for abolition of nuclear weapons and for a drastic reduction in conventional forces. It was supported by the United States. The Soviet Union substantially accepted them. The British leader, Philip Noel Baker, acclaimed it as a "moment of hope". But the American delegate withdrew all the proposals on Disarmament submitted to the United Nations. He announced that "it is our view that if the armed forces and military expenses were brought down to too low a

level, then instead of the prospects of peace being improved, real danger of war is increased". Thus Disarmament, instead of being a blessing to humanity, was considered a danger to peace! If more armaments, nuclear or otherwise, will ensure peace in the world, why decry India strengthening peace.

The West, instead of marching towards the goal of elimination of nuclear weapons and general and complete disarmament, began to talk of arms control and arms control negotiations. Arms control negotiations themselves spurred the arms race. Constant comparisons of the number, yield, etc., of arms among the countries led to each country trying to match the other. Nuclear stockpiles in the United States and Russia continued at a feverish pace and such activity, instead of causing alarm, was looked upon as a deterrent to a Third World War. Russia, which had originally offered the pledge of "no first use", withdrew it and postulated that the main function of nuclear weapons was to deter nuclear as well as conventional attacks.

The Nuclear Powers had no interest in genuine disarmament or elimination of nuclear weapons, but were resorting to several subterfuges to preserve their monopoly of nuclear power. One of the measures they successfully brought into force through the UN was the Non Proliferation Treaty - referred to as NPT. This Treaty came into force on 5 March 1970. Most of the members of the United Nations became parties to the Treaty. However, two nuclear powers, France and China, and non-nuclear weapon states India, Israel, Pakistan and South Africa, did not sign the Treaty.

A cursory perusal of the Articles of the Treaty will convince you why India did not accept the instrument.

Under Article I, the nuclear powers USA, Russia, UK, France and China, undertook a solemn obligation not to transfer nuclear weapons or give access to nuclear weapons to anyone whatsoever whether individual non-nuclear states or group of states.

Under Article II, non-nuclear weapon states undertook an obligation not to receive, manufacture or otherwise acquire nuclear weapons.

Article III provides that each of the non-nuclear weapon state signatory to the Treaty undertakes to accept safeguards set forth in an agreement including inspection, verification, etc., to be negotiated with the International Atomic Energy Agency.

As far as the nuclear weapon states were concerned, Article VI provided for an obligation to pursue negotiations in good faith on effective measures relating to the cessation of the nuclear arms race at an early date and to nuclear disarmament and on a Treaty on General and Complete Disarmament.

I want you to pause and consider the relative obligations imposed by the Treaty on non-nuclear weapon states and the Nuclear Five. The nuclear powers undertake a solemn obligation not to transfer nuclear weapons or give access to nuclear weapons to non-nuclear states, while the non-nuclear states undertake an obligation not to receive, manufacture or otherwise acquire nuclear weapons. Thus, while the non-nuclear states cannot manufacture nuclear weapons, there is no corresponding obligation on the part of the nuclear powers not to manufacture nuclear weapons. The nuclear powers were free to manufacture unlimited numbers of nuclear weapons under the Non-Proliferation Treaty.

This meant that the expansion of nuclear weapons by the nuclear weapon states will not be considered proliferation, while a similar activity by non-nuclear nations will be regarded as proliferation. The net result was that the haves can have more and the have-nots can have nothing.

Under the NPT, non-nuclear states will be subjected to inspection, verification, etc., by the International Atomic Energy Agency, but there will be no such obligation on the nuclear powers. India, which had developed nuclear technology independently without foreign collaboration, therefore, rejected the NPT.

India exploded her first nuclear device in Pokhran in 1974, within four years of the NPT coming into force. The question arises, "What prompted India to undertake this action?" In 1974, there was no threat perception to India's security. In fact, India's defence capabilities and reputation stood high after the 1971

Bangladesh war. In my opinion, the first Pokhran test was a protest against the arbitrary and unequal Non-Proliferation Treaty. About a decade later, India made preparations for a second nuclear test at Pokhran. Even at that time, security considerations were not the ones which compelled or induced India to undertake the test. It was undertaken to demonstrate again India's nuclear capability to the rest of the world. The preparations for the test were completed and, as Defence Minister, I had gone down the shaft and seen all the arrangements. We did not, however, conduct the test at that time for several reasons including pressures from international sources. I learnt that similar arrangements were made around 1995, but the actual test was abandoned.

The NPT had prohibited nuclear testing in the atmosphere and underwater. It allowed underground testing by the nuclear powers. The Comprehensive Test Ban Treaty (CTBT) extended the prohibition to underground tests also, but not before the nuclear powers had carried out all their tests. The principles and objectives for Nuclear Non-Proliferation and Disarmament stated that "pending the entry into force of a Comprehensive Test Ban Treaty, the Nuclear Weapon States should exercise *'utmost restraint'* (emphasis supplied) in carrying out further tests".

Notwithstanding the solemn declaration, China conducted on 15 May 1995, its 42nd test and on 17 August 1995, its 43rd nuclear test. France declared its intention to carry out a series of eight tests starting from September 1995 and ending with May 1996. These are two interesting examples of the *"utmost restraint"* that the nuclear powers had undertaken to observe before the CTBT came into force. No wonder, India declined to join the Comprehensive Test Ban Treaty.

There is an apprehension in people's minds that the Super Powers might squeeze India with their political clout and economic sanctions. The Super Powers may try to bring the issue of Kashmir back to the United Nations and thereby embarrass India. It is well-known that in the Simla Agreement, both parties - Pakistan and India - have agreed to resolve all their disputes by direct negotiation. Bilateral Agreements have sanctity and cannot be lightly interfered with. The attempt of the United Nations Secretary-

General to send a Mission to South Asian countries will not be valid without the consent of the countries concerned and India has enough strength to withstand such pressures.

The threat of imposing economic sanctions, withholding loans, aid, etc., have, in the past, proved ineffective. To-day, America has imposed sanctions against 69 developing countries and China. No country has collapsed. For instance, if they withhold loans for projects in progress, then it is their own investments that will suffer. Therefore, they have exempted projects already under execution. Secondly, it will not be difficult for India to borrow from the commercial market at somewhat higher rates of interest, to finance its most vital or essential programmes. Thirdly, all countries will not join in imposing the sanctions because their commercial interests, will be affected. Already, England and France have declined to join in the sanctions against India. They would try to jump into the vacuum created by the United States and other countries imposing sanctions. Above all, India has the resilience to take on these sanctions. We are self-sufficient in food, clothing, consumer durables, drugs and pharmaceuticals, etc. We can easily afford to go without Kentucky chickens, Colas and cosmetics. If India would recall the familiar slogan adopted during the freedom struggle, viz., "*Be Indian, Buy Indian*", the country will be able to stand up to the economic pressures. No country in the world can afford to ignore the vast present and potential market of India. The Indian middle-class consumers number 250 million, equal to the population of the United States of America, and they offer the greatest attraction to trade. History is replete with instances of embargos imposed by the League of Nations having failed woefully. In the face of fierce competition for markets, sanctions may prove to be nothing more than King Canute's Command to the Waves.

It is sometimes argued that India, by undertaking the tests, has opened up dangers of nuclear conflict between India and Pakistan. They think the dangers have been enhanced by Pakistan conducting similar tests. On the other hand, the history of the world since the Second World War bears ample testimony to nuclear deterrence. Whereas wars have occurred fairly frequently in history, the fear of nuclear destruction has saved the world

from a Third World War. The possession of nuclear weapons by the enemy will be one of the strongest deterrents against any misadventure by a country. The nuclear explosions by India and Pakistan will deter any misadventure by either country and oblige both the parties to negotiate and find solutions for the problems.

Some people have argued that the timing of these tests was inopportune. Taking into account the mood of Nuclear Powers to bulldoze and coerce the countries like India to subscribe to the NPT and the CTBT, it would not have helped India to delay demonstration of its nuclear capability. Therefore, the decision to conduct the nuclear tests was both courageous and wise. I look upon the tests conducted by India as an attempt to break the monopoly of the five nuclear countries and usher in a more equitable regime of progressive elimination of nuclear weaponry and the achievement of a Comprehensive Disarmament Treaty.

Having broken the monopoly of the Nuclear Five, the question is asked whether India should join the Nuclear Club and enjoy its privileges. Having pleaded for a total elimination of nuclear weapons, it would be immoral for India to join any group which would have the privilege of increasing the nuclear arsenal. On the contrary, India should strive through the United Nations to bring about a Treaty on "*No First Use*" of nuclear weapons by any of the Member-States.

I am confident that no Member-State will have the courage to oppose a resolution of this kind, as this would brand it as one wanting to use nuclear weapons against humanity. The second step that India should take is to bring about another Treaty freezing the nuclear arsenal as of date and to draw up a time-bound programme for progressive reduction of all nuclear weapons. The Rajiv Gandhi Proposal before the Sub-Commission on Disarmament fixing 2010 A D for complete elimination of all nuclear weapons should be pursued vigorously by India and like-minded nations.

Of all the ancient civilizations of Babylon, Egypt, Greece and Rome, the Indian civilization alone has survived. India has a resilience unmatched and unequalled by others. Its mission in the current context should be to bring about a nuclear-free non-violent world.

Going Thermonuclear : Why, With What Forces, At What Cost

BHARAT KARNAD

Until the May 1998 series of nuclear tests, Indian strategic thinking wallowed in the comfortable non-empiricism of what may be called phantom deterrence premised on phantom forces conjured out of mere hints by official Indian and Pakistani sources about nuclear weapons at the ready.¹

While nuclear weapons are now a reality, the search is still on for a viable strategic rationale for them. Pakistan as a threat does not carry very far. China is more credible as a vehicle, but is woefully weak as a basis for dramatic change in policy. Considerations of realpolitik provide the whole answer, but the historic antipathy to the military power of the State continues, as in the past, to clog the Indian official mind and to prevent clear thinking.

But there is no escaping the fact that nuclear, and even more, thermonuclear weapons are primarily an instrument of strategic independence for the country and an attribute of Great Power. Indian governments, however, from the very beginning have for public reasons of piety and pacifism, sought to achieve neither. The need to adopt the realpolitik rationale is of the utmost urgency.

Pakistan with its threat compass limited to India has been more forthright in nuclear matters. It made known its tasking of *F-16* strike aircraft for nuclear delivery² and, more recently, threatened to use the nuclear-tipped intermediate range *Ra-Dong* missile (ex-North Korea) renamed *Ghauri*, in case of war with India.³

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Other than designating a medium artillery regiment of the army some years back for handling the *Prithvi* short-range surface-to-surface missile (SSM), New Delhi has done precious little, leaving the crucial matter of specifying the Air Force elements in the nuclear role and about the payloads for both the *Prithvi* and the longer ranged *Agni* missile dangling in the air.⁴

Depending on the point of view, this Indian tack is characteristically shifty or cautious and clever. There is, of course, the danger of too much caution in pursuit of lost ambiguity and overcleverness exacting a steep price. Keeping the country's serviceable nuclear weapons under cover and official statements vague may lead, for instance, to more uncertainty than is wise considering that the other sides in the immediate conflictual dyads India is involved in, namely, with China and Pakistan, have laid their cards on the table. It could eventuate in an adversary misreading Indian intentions and India's will to resist and, worse, even doubting New Delhi's weaponising capabilities. It will critically undermine the Indian deterrent nominally in place for dealing with nuclear weapons states (NWS) at-large.

The curious policy of sub-deterrent deterrence, variously described in the literature as "non-weaponised", "recessed", "existential", "opaque" or "virtual",⁵ which had a covert weaponising thrust, led over the years to piling speculation upon speculation with this blancmange finally topped by the abstraction of minimum deterrence, a concept that was exhaustively researched in the US in the Fifties and Sixties but found its most vociferous, if indiscriminating, supporters in India in the last two decades.

K Subrahmanyam, sometime secretary to the Government for defence production and long-time Director of the Institute for Defence Studies and Analyses (IDSA), and his cohorts, however, rejigged the concept to have it conform to the hoary Indian attachment to disarmament and morally responsible international behaviour whatever that is. Indeed, he has gone so far as to virtually neuter the 'deterrence' element in the concept by, for instance, insisting that the country's strategic policy not give offence to potential adversaries, that it not "cause concern to China

and Pakistan".⁶ This is to defeat the very purpose that deterrence is meant to serve. After all, deterrence works because of mutual fear, not by dilution of that fear! With the vanguard of the Indian strategic community so oriented, it is no surprise that thermonuclear weapons were out of the pale of public debate.⁷

Subrahmanyam has all along assumed, for example, that India need not and will not go beyond the simple fission weapons stage because fission weapons capability is quite sufficient for the purposes of deterrence. With this as premise, he argued, that the one-off test in 1974 was adequate in and of itself to create a small nuclear weapons inventory, that it was militarily serviceable enough to obtain minimum deterrence and that further testing, therefore, was unnecessary.⁸

It was a short step from this position to his advocating that India sign the hugely flawed Comprehensive Test Ban Treaty (CTBT) and get in on the equally inequitable Fissile Material Cut-off Treaty (FMCT) on the anvil.⁹ The thinking behind this campaign to commit to these accords was presumably that doing so would not in any way disturb or endanger the 1974 level fission weapons deterrent the country "virtually" possessed.

The Subrahmanyam School, it turns out, was wrong in many of its essentials — a fact pointed out well before the May Tests,¹⁰ and which was subsequently confirmed by the leading lights in the Indian nuclear programme who considered additional testing "absolutely necessary" to realise any kind of practical deterrent, build an effective nuclear weapons arsenal and to firm up the desired deterrence system.¹¹ This school of thought was and is opposed by the nuclear establishment in the matter of signing the CTBT and FMCT as well. The well-founded fear is that acceding to the former will put a stop to further testing, curtail India's advance to thermonuclear weapons and restrict this country to just kiloton yield weapons, and that acquiescing in the latter, apart from gravely hurting national sovereignty (owing to intrusive provisions in the draft treaty for inspections, etc.) will mean letting the fullscope safeguards regime gain entry by the back door.¹²

Moreover, thermonuclear armaments as constituting a many times more effective strategic deterrent was better grasped by political leaders than by many strategic writers who, ironically, rue the lack of knowledge of politicians on national security issues!¹³ When he made the formal decision in 1985 to weaponise, Prime Minister Rajiv Gandhi expressly approved, for example, the development of thermonuclear devices, whence the successful fusion test of 11 May 1998.¹⁴ In the public debate, however, other than in stray writings,¹⁵ the case for thermonuclear weaponisation has received scarce attention. Even writings by ex-military-men, on the subject, have kept strictly to the "Subrahmanyam-limits" and talked mainly in terms of fission weapons in a minimum deterrent posture.¹⁶

Be that as it may, according to Dr R Chidambaram, Chairman of the Indian Atomic Energy Commission, all that the lone thermonuclear test has done is enabled India to perhaps upscale the design and to produce a 200 kiloton fusion weapon. This may be four times as big as the 43-45 KT hydrogen bomb exploded on 11 May 1998, but it is far from being a genuine megaton item. Chidambaram stated, if only by indirection, that for India to secure the megatonnage in weaponry, further thermonuclear testing is essential.¹⁷ It is technically possible to have large yields with "boosted" fission weapons of the kind tested four months ago.¹⁸ But megatonnage is most effectively and economically acquired by developing thermonuclear weapons.

The fact is for the deterrent to be safe and credible, the country will need far larger numbers of fission and fusion weapons and warheads than is envisaged by the champions of minimum deterrence who limit themselves to articulating nuclear force strength in double digits. The force structuring dilemma India faces is captured by an Israeli proverb: "Quality is more important than quantity — but is best in large numbers."¹⁹ What that "large number" is to be and of what quality — fission or fusion, is the crux of the matter.

What needs to be protected zealously at this stage in the country's weaponisation process, however, is India's sovereign

right to do whatever is necessary by way of research and testing eventually to attain at least notional parity, both in qualitative and quantitative terms, with the three "second tier" nuclear weapons states — the UK, France and China.²⁰ Why parity? Because a rough military balance is what facilitated political detente in the East-West context during the Cold War²¹ and is most likely to beget an equitable peace with China and a *modus vivendi* with the other four nuclear weapons powers.

This requires India to build up to nothing less than 350-400 weapons/warheads, with capping the stockpile at this level being made conditional on the time-bound American and Russian draw-downs of their nuclear inventories to around 500 weapons/warheads each, and the French, British and Chinese, to stabilise theirs around the 300-400 mark. This sensible, prudent and pragmatic approach, based on abundant caution, has, alas, been weakened with the Indian Government's decision to end testing coupled with the offer to negotiate entry into the CTBT-FMCT net in return for what seems to be small change.

Why Thermonuclear?

Sir Solly Zuckerman, the former Science Adviser to the British Prime Minister, has noted that "There is built into nuclear weapons greater destructive power than is necessary for military purposes, and their secondary, non-military effects overshadow those which relate specifically to their military use."²² The higher the yield of the weapon, the larger is the gap between its military purpose and the weapon's non-military effects and greater, in turn, it would seem, is its deterrent value. Because there is no "plausible strategy for limited nuclear war that would be unlikely to involve a mass destruction of the populace and of the industry of the country being defended",²³ for the defender with limited resources, the crucial question is how to get the biggest bang for the buck in order successfully to deter total war?

The theoretical upper limits for yields of a fission device is 9 kilotons (KT) of TNT per pound of fissile material and for a fusion weapon (depending on the particular thermonuclear reac-

tion) as much as 30 KT per pound. But because the weapons assembly begins to fall apart with explosive force before all the material undergoes fission, the ongoing fission or fusion reaction is cut short and the actual yields in detonated atom or hydrogen bombs are only a tenth of the theoretical maximum yields.²⁴

According to the data collected by the US Congressional Research Service, by the year 2000 India will have an annual production rate of 127 kg of unsafeguarded fissile material and an accrued total of some 1,607 kg of the same, which is sufficient to fashion 400 warheads.²⁵ (This data, circa the early 1980s, is a bit dated. But it will do for the indicative purposes of this chapter.) Using the actual weapons yield figures, were all this material to be turned into fission (nuclear) weapons, the cumulative yield of the prospective Indian arsenal by the end of the Century would be 3,095 KT or a little over three megatons, while the total destructive power if this amount of material were exclusively fused, would be over three times as much at 10,317 KT or over ten and a quarter million tons or megatons (MT) of TNT.

There is hardly any doubt that fusion weapons offer more destructive power and, hence, greater deterrence for the money. Though the Indian scientists are confident that they have mastered the two-stage, twin assembly, thermonuclear explosion technique²⁶ — the fission fuze to fire the fusion reaction, there are good reasons not to abjure further testing. More than a single test for any type of weapon is required before the explosion physics and other problems (materials, engineering) are mastered and weaponising kinks worked out²⁷ to enable the assembling of a hydrogen weapons arsenal. Should simulation software and data relating to thermonuclear explosions be made available by the US to India²⁸ — unlikely though such a bargain is — in the sort of deal that France cut in 1996 with Washington in return for cessation of tests, it will still necessitate further testing by India in order both to verify the American simulation package and to mesh indigenous test data with it.

While some 2,000 tactical nuclears each with a couple of kiloton yields in theatre use can take out 25 front-line army divi-

sions,²⁹ the psychological, and therefore, the deterrent effect³⁰ of this is nothing compared to thermonuclear weapons vaporising whole cities — the repositories of the bulk of national wealth, or flattening extensive high value “hardened” military-industrial complexes. The threat of instant destruction on this scale will more credibly deter the potential adversary than 200 kiloton weapons with their more limited destructive power against the same targets.³¹ In the event, if a counter-cities or counter-value nuclear bombardment strategy is the only one that makes sense, then thermonuclear bombs, with megaton yields, are the most convincing instruments of this strategy.

Without a force of 3 to 5 MT weapons available at the earliest, India's negotiating position is weak and in crisis or war the other nuclear weapons states, especially China, will have “escalation dominance”, which Herman Kahn, arguably the greatest thinker on nuclear deterrence, says, is “the net effect of the competing capabilities”.³² Those who pooh-pooh these coercive aspects³³ disregard the basic fact of nuclear life that *deterrence is ultimately a mind game* played more in peace time to cajole and compel obedience than during conflict to achieve results.

The best evidence of this was provided by the Chinese who stared down American nuclear threats in the past with great resoluteness.³⁴ India has mostly chickened out when the going got tough. In this context, the 3.3 megaton bulk strategic weapon with the Chinese Peoples Liberation Army's Second Artillery Corps, for example, will loom larger on the Indian mind than the at-most 200 KT weapon in Indian employ will do in Beijing in any future crisis or contingency.

There is a third set of reasons to favour a mostly thermonuclear force and it has to do with the “usability paradox” attending on nuclear weapons. In the mid-80s, the Harvard Nuclear Study Group, in a comprehensive study of the politics of nuclear weapons, described the paradox thus: “Nuclear weapons can prevent aggression only if there is a possibility that they will be used”, but they should not be made “so usable that anyone is tempted to use one.”³⁵ The decision to launch city-busting hydrogen bombs

and thermonuclear warheaded ICBMs in a direct attack on the enemy homeland would, on the face of it, be more onerous and far-reaching and, hence, will be more difficult to make than, say, a decision to loose off a theatre nuclear weapon or a tactical nuclear salvo on a peripheral target. And for this reason, thermonuclear weapons, would, logically-speaking, be under tighter command and control and will more easily help stabilise the security situation with regard to a bigger nuclear power.

Any new member of the nuclear weapons club faces a situation that the Soviet Union and China found themselves in. Unable to keep pace in warhead miniaturisation and in the refinement of navigation and terminal guidance technologies which realised for the US ever more lethal, accurate and versatile nuclear armaments, Moscow and later Beijing reacted by increasing the throw-weight of their missiles, i.e., raising the thermonuclear yields of their arsenals to multi-megaton levels, to correct for the technological gap vis a vis the American inventory.

India will similarly have to contend with the range of weapons from the extremely advanced held by the US to the relatively effective in the Chinese inventory. Their very sophistication serves an intimidatory purpose. Simple caution dictates that the high yield thermonuclear weapons are the only means available to India now, and in the future, to balance the array of qualitatively advanced nuclear arms owned by potential hostiles.

Fusion weapons, promising unparalleled destruction spread over an unimaginably wide area, act as a very superior deterrent besides compensating for low accuracies of land-based and submarine fired missiles and for weaknesses, like navigational errors in targeting, by nuclear ordnance-laden long range bomber aircraft. Due to its large CEP (Circular Error Probable, a measure of missile accuracy, which denotes the distance from the point of impact to the location of the intended target as the radius of the circle within which 50 per cent of the shots and missile strikes will fall) and problems with terminal guidance, an Indian IRBM (intermediate range ballistic missile) set on its course, say, for the centre of an enemy city, may actually land in a distant suburb.

But that would not matter very much, as much of the metropolitan hub along with a good part of the countryside in a 150 sq mile area will still be destroyed by one 5 MT bomb.³⁶

Moreover, the extent of the threatened destruction is so geographically spread out, horrendous and indiscriminate, that the technological sophistication of the delivery system or of the warhead design, and of on-board electronics, etc., add only marginally to the deterrent value.

And, finally, the clinching argument: it is as economical to produce a multi-megaton fusion weapon as a fission weapon because most of the expense is in producing the fissionable material for the purposes of a trigger for one and the fissionable bomb in the other.³⁷ In the event, does it make any sense to stick to the simpler fission variety of weapons when the fusion types promise so much more cost-effectiveness and palpably more deterrence value?

Maximally Strategic

Until now, Indian analysts engaged in thinking about an appropriate nuclear force laboured under the triple disadvantage of not knowing (i) whether the Government would at all exercise the nuclear option, (ii) what the purpose of the immanent nuclear force would be, and (iii) what the perceived threats were against whom this force would be primed.

Lacking such basic directives and information from the Government, Indian analysts and war-planners limited themselves to giving rough figures for the weapons and warheads in the eventual nuclear inventory in line with what were touted as minimum deterrence requirements which, in turn, were accepted as having a quasi-official sanction. These figures have ranged from 60 to 150 weapons.³⁸ Curiously, nobody spelt out the reasons for this or that level of N-arms inventory or detailed the force structure they had in mind.³⁹

With the Government now more purposive in its outlook and

pronouncements, force structuring options can be discussed more substantively. For a start it was officially stated that Indian nuclear weapons are for strategic deterrence, not for tactical use.⁴⁰ This preempts the residual security concerns regarding Pakistan from messing up a rationally constructed nuclear force. Pakistan is not too weighty a factor anyway and there is unlikely to be a nuclear war in South Asia, whatever the Western prognostications.⁴¹

Shared culture and innumerable organic linkages have ensured that the subcontinental wars are severely controlled affairs, with both India and Pakistan habitually pulling their punches and refraining from striking at cities.⁴² If the two countries fought conventional wars with unmatched restraint, it is hard to imagine their lobbing nuclear bombs at each other — just because they now have them — in a war, which could annihilate one and gravely damage the other.

In the South Asian context, any use of nuclear weapons is tactical use, which the Indian Government has wisely foresworn. So, there is no question of shaping a Pakistan-specific nuclear force. But with nuclear armaments on both sides of the border, the larger and more powerful country, India, will have to win Pakistan's confidence.⁴³ The Indian offer of "no first use" was timely, will go a long way in making the Pakistanis rethink their demonology and should be unilaterally subscribed to.

These decisions, based on the strategic ("out of the area") rationale undergirding the new Indian thinking on nuclear weapons, should be intimated formally to Pakistan. It will psychologically disarm that country, afford Islamabad the political room for manoeuvre, and motivate it to negotiate a mutually beneficial understanding with this country in the nuclear realm. It will, additionally, create a groundswell of favourable opinion abroad and quieten the shrill and uninformed criticism emanating from the West about India pushing South Asia to the nuclear brink. And, it will dampen Washington's apprehensions of "nuclear instability" and of "indirect threat" to American interests in Pakistan posed by a menacing India.⁴⁴ Not nuclearising the *Prithvi*, moreover, makes ample military sense. It widens the "fire break" between conven-

tional and nuclear weapons and eases the "balance of terror" that Mushahid Hussain, Pakistan Prime Minister Nawaz Sharif's confidante and Information Minister, says exists.⁴⁵ In a "hot" border situation (in Kashmir), this will be a priceless development as it will remove the prospect of an unrecallable short range ballistic missile, accidentally or inadvertently, starting a nuclear conflagration.

Going Ballistic

The discussion so far has pointed out that one main foundation stone for a full and robust nuclear deterrent is predominantly thermonuclear weapons stores. The second is accurate and reliable long range missiles able to carry hydrogen bomb loads. Missiles are at once the most economical, effective and symbolically potent delivery systems available. Their military advantages, as an American study on Small Nuclear Forces (SNF) points out, are many. Missiles (1) need no expensive "fixed facilities" like air bases and runways and, therefore, are mobile and harder to target when dispersed in war time, (2) have "certitude of penetration", which in the absence of a credible anti-ballistic missile system even threatens the big powers,⁴⁷ which explains the strong missile technology denial tilt of American policies, (3) can be instantly launched, and, (4) best function as specialised and dedicated second strike weapons.⁴⁸

The third main element to make the force edifice stable is the so-called C⁴I² — Command, Control, Communications, Computers, Intelligence and Information — networks cobbled together into a "system of systems". This aspect has been explored elsewhere.⁴⁹

But India has available to it an option relatively speedily to attain an intercontinental weapons reach, which has not so far been seriously explored: the option is, as a top priority, to at least partially militarise the Indian Space Research Organisation's proven space launch capabilities. With ISRO readying its liquid fuel/cryogenic rocket system to put a geostationary satellite in orbit in 1999-2000, the ICBM technology is, in effect, already operational. All that is required is for the satellite payload to be replaced with megaton nuclear/thermonuclear warhead atop the ISRO rockets, and a redoubtable Indian ICBM force is ready.⁵⁰

The skills and technologies needed to put multi-purpose satellites in precise orbits over the equator or the poles (with the polar satellite launch vehicle capability this country has had for years) requires the rockets to keep to equally precise trajectories. These are the very technologies, suitably amended, that could help endow Indian ICBMs and lesser missiles with the kind of accuracy that no country can afford not to be deterred by.⁵¹

Moreover, the mid-course correction and terminal guidance paraphernalia on board the ISRO space launch rocket systems developed for ICBM use can be easily transferred to improve the accuracies of the *Agni I* and *II* intermediate range ballistic Missiles (IRBM) and the *Prithvi SSM 150* and its air-to-surface variant, the *Prithvi ASM 250*, under production or retrofit. This, in turn, will necessitate integration of the IGMDP with some parts of ISRO or, at a minimum, a protocol for the transfer of the requisite technologies by ISRO to the missile development outfit.

For too long has synergy been sacrificed in order to keep the military and the so-called "civilian" sensitive technology programmes artificially separated. This was an inherently bad policy to begin with but was, perhaps, necessitated ere the US-inspired Missile Technology Control Regime (MTCR) kicked in with venom a few years back. Today that pretence can be shrugged off. In any case, the sooner it is, the quicker the country will derive substantive security benefits from the sizeable national investments in the "dual use" space sector.

Nuclear Force Structure

Western analysts, in the main, have pondered the likely nuclear force design for a "middle power" like India and concluded that, taking into account its various resources and threats, what will finally accrue will be on par with that of China, the UK and France. Many of these exercises, however, are fixated on the unlikelyst of contingencies — an Indo-Pak nuclear fracas and have stressed nuclear strike aircraft and nuclear tipped short-range surface-to-surface missiles.⁵² This sort of thing limits their relevance somewhat for India, whose strategic and threat compass includes lots more besides Pakistan.

Following the Western lead, Indian efforts in this direction too have suffered from a mainly South Asia-bound "tactical" perspective. The force plan articulated in some detail by General Sundarji, for example, talks sensibly of obtaining a nuclear deterrent in three phases in an open-ended sort of way. But a potentially strategic-use weapons system, referred to as *Agni Mark 2*, does not make its entry into the proposed force structure until the very last phase. He relies on "road and rail-mobile" long range missiles, and like a good foot soldier, entirely misses out on a possible role for the Navy.⁵³

Most fatally, however, there is no mention in it or in the Subrahmanyam scheme for that matter of Atomic Demolition Munitions (ADMs), which are featured in Indian nuclear force structuring exercises done by Western analysts.⁵⁴ ADMs are ideal weapons for use in the mountains because they are designed to cause landslides and block possible attack routes through the Himalayan Passes that the Tibet-based Chinese Integrated Group Armies may seek to force. Vectoring SSMs and ASMs exactly to inflict the greatest damage in that terrain will be difficult. Aircraft carrying nuclear gravity or glide bombs (NGBs) too may be handicapped in the Indian North East, even with the latest avionics onboard, by bad weather and other routine problems as hamper weapons aiming and release in mountain operations. So ADMs providing sure but "passive deterrence" are a must against a China even remotely contemplating a conventional offensive in the high Himalayas.

Subrahmanyam, like Sundarji, has not chalked out in any great detail an Indian deterrent except to indicate that 60 nuclear weapons/warheads mounted atop some 20 *Prithvi* missiles, a like number of *Agni* missiles and carried by strike aircraft, would do. Surprisingly, he is equivocal about equipping submarines with IRBMs/ICBMs, doubting whether a submarine-launched missile will be available any time soon.⁵⁵ He, moreover, thinks that such an Indian force will not worry Pakistan!

The Indian designed and manufactured nuclear powered submarine (SSBN), able to fire an indigenous nuclear warheaded

ballistic missile (SLBM), will come on stream faster than many analysts expect it to.⁵⁶ In any case, this submersible, fitted with 12 ballistic missile tubes, is a naval priority and should enter the lists definitely by 2010. It will provide this country with an invulnerable second strike capability that no mix of aircraft and land-based and air-launched missiles will be able to obtain. If the Indian Navy follows the Royal Navy standard then to keep one submarine, and in an emergency two vessels, on station the country will have to have a minimum SSBN fleet of four boats.⁵⁷

In light of the discussion so far, a nuclear force architecture begins to crystallise. The *Sukhoi-30 MKI* fighter-bomber will serve as the long range strike aircraft well into the next century. With aerial refuellers finally being acquired by the Indian Air Force, a small portion of the *Jaguar* low level strike aircraft and the multi-role *Mirage 2000* Air Attack Groups can be converted, in the immediate future, for nuclear bombardment missions for intermediate ranges of up to or even beyond 1,000 miles and as a more reliable, primary, system in the force make-up before an improved *Agni II* IRBM is realised. *Su-30 MKI*, its range extended with aerial refuelling, can thereafter be used to augment the IRBM strike capability.

Targeting Policy

Targeting doctrines of the established nuclear weapons states reflect a tortuous evolution in their thinking over the years. Of course, considering the 33,000 odd warheads owned by the US and Russia, any discrete targeting philosophy is rendered moot because with an over-sufficiency of weapons, the whole range of mix and match counterforce and countervalue force profiles become feasible.

Lesser powers have to be more selective given the limited numbers of nuclear armaments in their possession. The UK, France and China played it safe and exclusively targeted big cities during the Cold War.⁵⁸ The limitation of numbers and options available, in a sense, simplifies the choice of targets. India is in the same boat as these three countries found themselves in, in the East-

West, Sino-Soviet and the Sino-US versus Soviet Union confrontations during the Cold War. Its nuclear ordnance will have to be aimed to take out large enemy cities. To, in the main, deter China, for instance, Beijing and the commercial and industrial concentrations on the eastern, south-eastern and southern seaboard, including Hong Kong (which sources over a third of the burgeoning Chinese exports) and Shanghai, suggest themselves as obvious targets.⁵⁹ A secondary list should include prominent Chinese military and weapons complexes, among them, the North West Nuclear Weapons Research and Development Academy (the so-called Ninth Academy) inclusive of the testing site at Lop Nor in Xinjiang, the various aircraft production complexes in Sichuan and Yunan, which are provinces adjoining India, and specifically the regional military command in Chengdu, the naval base on Hainan Island and the Bohai shipyard in Huludao, Laoning province, constructed with Soviet help to manufacture nuclear submarines.⁶⁰

The 400 Minus Threshold

A targeting philosophy to make deterrence credible and ensure that it works in all circumstances, requires that the nuclear stockpile be large enough to be consequential and that it should be perceived by potential adversaries as capable of being delivered on target. Assuming that there are no more than 60 locations identified in the primary and secondary target lists, to ensure the certainty of destruction, at least initially when the accuracy of delivery is suspect, may require that as many as four nuclear weapons of whatever mix be directed at each of these targets.

Why four missiles/bombs on single high value targets? Herman Kahn used probability theory and a matrix mapping survival of ICBMs against their yield to postulate that the efficiency of a ballistic missile is the square of its accuracy as represented by CEP. Assuming that with a one mile CEP, the kill probability is 100 per cent, for a two mile CEP four missiles will be required to achieve the same kill probability. Were the CEP to be half a mile, it would take only one-fourth as many missiles.⁶¹

The logic of this formulation is that, short of pinpoint accuracy, which the US may now have attained, a city-busting weapon

per target may not, in every situation, deter an adversary who, playing the averages, can bank on that single missile being wide off its mark. But were four nuclear weapons, each with a two mile CEP to be targeted on a major city, the risk of even one or two hitting the metropolis would prove too daunting for the putative enemy to ignore.

This leaves open the possibility that with progressive improvements in missile accuracy, the number of weapons aimed at any one target will decrease, freeing ever larger numbers of missiles in the force for possible use on newer, additional, value targets.

A nuclear force strength in the 350-400 range is advisable for another reason. There is the very real danger that a small number of nuclear weapons may invite a disarming conventional or nuclear first strike, which the US, for example, can presently mount.⁶² But it also reveals the essence of the problem facing India in structuring, at least in the foreseeable future, a small nuclear force based principally on missiles with low accuracy and large CEPs.

Force Architecture

The shape and size of an affordable nuclear force ought to be such as to eventuate into a "balanced deterrent",⁶³ for the very good reason that inordinately to favour any particular nuclear delivery mode would be irretrievably to skew the force and make it more vulnerable and less effective. The proposed force structure is detailed in Table No. 1 as is the rough time frame in which the various force levels can be expected to be attained.

The nuclear weapons in the operational category, according to this proposed scheme, will by the end-year 2030 number some 253 mainly thermonuclear weapons. The Atomic Demolition Munitions will take care of the rest of the inventory of some 278 weapons/warheads. Another 50 weapons of various yields-to-weight ratios would require to be held as a contingency reserve. The resulting ratio of weapons deployed to weapons held in reserve, in order to achieve the overarching goal of full and robust deterrence, is far from excessive.

Table No. 1: Thermonuclear Force Structure

Timeframe	Maximally Strategic	Minimally Tactical
2000-2010	1 x SSBN;* 12 x SLBMs 40 x <i>Su-30</i> MKIs* 10 x N-gravity bombs (NGBs) 10 x N-air-to-surface missiles 5 x ICBMs 10 x IRBMs 10 x ADMs	20 x <i>Jaguars</i> * 10 x <i>Mirage 2000s</i> * 10 x N-gravity bombs 20 x Nuclear air-to-surface missiles (ASMs)
NWs	57 x NWs	30 x NWs /total 87 NWs
2010-2020	3 x SSBNs* 36 x SLBMs 40 x <i>Su-30</i> MKI aircraft* 20 x NGBs 20 x ASMs 15 x ICBMs 25 IRBMs 15 ADMs	30 x <i>Su-30</i> MKI N-strike aircraft* 20 x NGBs 20 x N-ASMs
NWs:	131 x NWs	40 x NWs/ total 171 NWs
2020-2030	4 x SSBNs* 48 SLBMs 40 x <i>Su-30</i> MKIs* 40 x NGBs 40 x N-ASMs 25 x ICBMs 40 x IRBMs 25 x ADMs 50 x NWs (reserves)	30 x <i>Su-30</i> MKI aircraft* 30 x NGBs 30 x N-ASMs
	268 x NWs	60 x NWs total 328 NWs

* Delivery Systems

Costs of a Full and Robust Deterrent

Additional burdens on the public exchequer are always hard to justify. But in the interest of national security nuclear weaponisation costs must be borne. Many estimates have been made about the likely cost. Here we will mention two sets of figures as benchmark.

It was recently revealed that a task force headed by the then Army Chief, General Sundarji, assessed the cost at the 1985 value of the rupee for a "balanced minimum deterrent" as Rs 7,000 crores over 10 years.⁶⁴ At mid-1998 market value, this amount is nearly Rs 11,500 crores. But writing in 1994, and referring perhaps, to this study, Subrahmanyam mentioned Rs 5,000 crores as the estimated cost "at 1986-87 prices".⁶⁵ It is difficult to reconcile the two figures, unless he pared the force structure or adjusted the costs downward in some fashion and for reasons best known to him. However, no force details or a breakdown of the costs have been made public.

In the latter exercise, however, Subrahmanyam, perhaps relying on his own calculations, estimated the total cost of weaponising a minimum deterrent (including the production costs of 20 *Prithvis* and 20 *Agnis*, the deployment cost of these in the mobile mode, the fabrication costs of 60 warheads and of command and control and safety measures) as Rs 10,000 crores in 1994 rupees.⁶⁶ This figure would appear to be on the low side. My estimation of the likely costs for the full and robust deterrent (Table No. 2), however, errs deliberately on the high side.

The costs, it must be cautioned, are very rough guesstimates, extrapolated from the known or reported costs of nuclear weapons and delivery systems at home⁶⁷ and abroad computed and tabulated for the constituent elements as well as for the total force as will obtain in 2030. A charge of 40 per cent of the cost of nuclear weapons systems is computed as the price tag of a fairly extensive, relatively fail-proof, C⁴I² system. Another Rs 5,000 crores are tasked for "hardening" certain elements (like the *Su-30* MKI pens and probable ICBM silos) to 100 psi (pounds per square

inch) overpressure to withstand nuclear kiloton strikes (though not direct hits), and for dispersal and concealment.

Economists worry about the costs of the economic sanctions, of lost business, trade and investment, owing to the G-8 countries turning the screw on India. One estimate of such losses in terms of 1998 value of rupee is Rs 210,000 crores over the next 30 years.⁶⁸ Notwithstanding the tempering of American sanctions, there is merit in considering a slightly inflated worst case, because it indicates a sort of ceiling. The worst case "real cost" of India's going nuclear is nearly Rs 270,000 crores over the next 30 years — Rs 60,000 crores (rounded out figure) for nuclear weaponisation plus Rs 210,000 crores in opportunity costs of lost trade and investments.

But this amount equals only 1/42nd part (or 2.38 per cent) of the Gross National Product (GNP) of this country in 1996-97 of Rs 113,54,000 crores.⁶⁹ The GNP is increasing, at an annual rate of 7 per cent and can be expected to reach Rs 1058,800,000 crores in 2029-2030. Surely, even the worst case-cost (equalling 0.0255 per cent of GNP in 2030) is eminently affordable considering that thermonuclear weapons will enable India to avail of "absolute" security from external threats, perhaps, for the first time in its recorded history.

Conclusion

The nuclear endgame is a hard one to play because there are no rules. India has to stand fast to its stake in thermonuclear weaponisation, which alone can cement the strategic independence of this country.

In case the irreducible minimum demand for treatment as a nuclear weapons state on par with the UK, France and China is not met, it would be best for Delhi to disengage. A thermonuclear weaponised India, holding all the high cards, will only strengthen its bargaining position by not being seen as too eager for a *rapprochement* other than on its terms.

**Table No. 2: Costs of a Thermonuclear Force
Operational by the Year 2030**

	Weapons	Unit Cost (crores)	Numbers	Programme Cost (crores)
Army	ICBM	Rs 40	25	Rs 1,000
	IRBM	Rs 35	40	Rs 1,400
	ADM	Rs 10	25	Rs 250
Navy	SSBN*	Rs 5,000	4	Rs 20,000
	SLBM	Rs 50	48	Rs 2,400
Air Force	Su-30 MKI*	Rs 150	70	Rs 10,500
	ASM	Rs 25	70	Rs 1,750
	NGB	Rs 20	70	Rs 1,400
	Contingency Reserves	Rs 30	50	Rs 1,500
Total Cost			(328)	Rs 40,200
C ⁴ I ²				Rs 15,480
Force hardening, dispersal and concealment				Rs 5,000
Grand Total				Rs 60,680

* Delivery Systems

If, however, the Government musters nothing more than its usual propensity for moderation when it is not warranted and for morality where it is inappropriate and irrelevant, and negotiates away this country's sovereign right to thermonuclear security, then the odds are that India in the 21st Century will subside gently to the position of a minor power.

Notes

1. Ministers of Defence in the past never, of course, talked of an existing nuclear weapons stockpile except indirectly. Thus, they only issued warnings to Pakistan of dire consequences should it mount a nuclear strike. As an instance of such warnings, see Defence Minister Sharad Pawar's statement in "India warns Pakistan against N-option", *Indian Express*, 12 February 1992. Indian Atomic Energy Commission (IAEC) officers, retired and serving, have, however, been growingly more forthright in their pronouncements to the Press about the country's weapons/weapons capabilities. See the chairman, IAEC, Dr R. Chidambaram's statement of 30 April 1994 in *India Today* and, more recently, the former chairman, IAEC, and Minister of State for Defence Dr Raja Ramanna's interview to *Sunday Observer*, 14-20 December 1997.

Pakistani officials have been equally active in broadcasting the existence of a nuclear arsenal at least since 1987. For instances of such pronouncements, see Sardar Aseef Ali Ahmed's statement at the SAARC foreign ministers' meeting in Dhaka in "Pakistan to continue N-plan" *Times of India*, 7 December 1993; former Army Chief General Mirza Aslam Beg's statement at a Washington seminar in "Beg rules out N-option" *Times of India*, 13 July 1995, and his interview in *Indian Express*, 20 October 1997.

2. The nuclearised *F-16s* were on the tarmac and were supposedly ready to takeoff with nuclear ordnance during the so-called "1990 crisis". See the sensationalised account of it by Seymour Hersh, "On the Nuclear Edge" in *New Yorker*, 29 March 1993.
3. The then Pakistan foreign minister Gohar Ayub Khan has been the most vocal in threatening the use of a nuclear warheaded *Ghauri*. See "Gohar: Ghauri to be mounted with N-warheads", *Indian Express*, 31 May 1998, and his interview in *Outlook*, 1 June 1998.
4. The Indian Government has until now maintained that only a conventional *Prithvi SSM* has been deployed at the border. Regarding *Agni*, the then Prime Minister Inder Kumar Gujral stated in Parliament that it would not be nuclearised. See "Agni may not be tipped with N-warheads", *Times of India*, 18 August 1997.

5. A "deterrence ladder" has been offered to differentiate among the various types of deterrence. But the distinctions seem spurious. See Table No. 1 in Jasjit Singh, "A Nuclear Strategy for India" in Jasjit Singh (ed.), *Nuclear India* (New Delhi: Knowledge World, 1998), p. 310.
6. K. Subrahmanyam, "India Interactive: Talking Terms with the US", *Times of India*, 20 July 1998.
7. For a critical analysis of the Indian thinking on 'minimum deterrence' in the context of the broader history of the evolution of this concept, see Bharat Karnad "A Thermonuclear Deterrent" in Amitabh Mattoo (ed.), *India's Nuclear Deterrent : Pokhran II and Beyond* (New Delhi : Har-Anand Publishers, 1998).
8. This aspect is analysed in greater detail in Bharat Karnad "A Thermonuclear Deterrent" in *ibid*.
9. Subrahmanyam and Jasjit Singh's writings especially on CTBT, etc. scrutinised in Bharat Karnad, "The Quality of 'Expert' Advice", *Seminar*, August 1996.
10. See Bharat Karnad, "The Quality of 'Expert' Advice", *Ibid*.
11. See the interview of Dr Anil Kakodkar, Director, Bhabha Atomic Research Centre, and one of those involved in the weaponisation project, in *Times of India*, 30 July 1998.
12. Soumyajit Pattnaik, "FMCT may force India to adopt full-scope safeguards", *Pioneer*, 14 August 1998.
13. See, for instance, K. Subrahmanyam "Indian politics and vulnerability" *Economic Times*, 25 June 1998.
14. David Albright, "The Shots Heard Round the World", *Bulletin of Atomic Scientists*, July/August 1998, p. 23.
15. As far as I know, other than this writer, no strategic analyst has written and/or spoken on television (mostly on several Star News programmes in the wake of the May '98 Tests) about the thermonuclearisation of the Indian forces as the preferred option. See my "Cooking our Goose", *Seminar*, Annual, January 1997, and "A Thermonuclear Deterrent", n.7.
16. The most conspicuous example of this may be found in the writings of Subrahmanyam's successor as Director IDSA, Air Commodore (Retd.) Jasjit Singh. Former Army Chief General K. Sundarji, hailed by Subrahmanyam as an innovative thinker on nuclear military issues, makes no mention of H-weapons anywhere in his writings, either in his book (*The Blind Men of*

Hindoostan: Indo-Pak Nuclear War, New Delhi, etc.: UBS Publishers' Distributors Ltd, 3rd reprint, 1996) or in his monographs nor in his many Press columns to-date. Another senior Army officer known for serious interest in the subject likewise wrote a full sized book on the subject without once referring to the thermonuclear option. See Brigadier Vijai K. Nair (Retd.), *Nuclear India* (New Delhi: Lancer International, 1992). An indirect mention may be found in this book but only in a Table (no.9.9; p. 181) on force structure where he mentions 1 MT (megaton) warheads. But, there is no elaboration in the text of whether the source of the 1 MT yield is a "boosted fission" or fusion weapon.

17. "India can produce N-bomb of 200 kiloton: Chidambaram", *UNI, Times of India*, 23 May 1998.
18. Alexander De Volpi, "Technological Misinformation: Fission and Fusion Weapons" in David Carlton and Carlo Schaerf (eds.), *The Arms Race in the 1980s* (London and Basingstoke: The Macmillan Press Ltd, 1982), p.138. De Volpi is a physicist at the Argonne National Laboratory, Illinois.
19. Michael I. Handel, "Numbers Do Count: The Question of Quality Versus Quantity" in Samuel P. Huntington (ed.), *The Strategic Imperative: New Policies for American Security* (Cambridge, Massachusetts: Ballinger Publishing Company, 1982), p.193.
20. For a definition of the "second tier" and analyses about the nuclear policies of the states constituting this tier, see John C. Hopkins and Weixing Hu (eds.), *Strategic Views from the Second Tier* (New Brunswick and London: Transaction Publishers, 1995).
21. See Walter Solcombe, *The Political Implications of Strategic Parity*, paper no. 77, 1971, and Max Schmidt "Military Parity, Political and Military" in Carlton & Schaerf, *The Arms Race in the 1980s*.
22. Solly Zuckerman, *Nuclear Illusion and Reality* (New York: Vintage Books, 1982), p. 69.
23. Donald G. Brennan and Morton H. Halperin "Policy Considerations of a Nuclear Test Ban" in Donald G. Brennan (ed.) *Arms Disarmament and National Security* (New York: George Braziller, 1961), p. 237.
24. Brennan and Halperin, "Policy Considerations of a Nuclear Test Ban", pp. 247-248.
25. Rodney W. Jones, "Small Nuclear Forces", *The Washington Papers*, No. 103 (New York: Praeger, 1984), pp. 16-17. For the fissile production rate and accrued totals, see Table 1 of this book.
26. "Matters of Technology", *Frontline*, 17 July 1998, p. 84.

27. See Theodore B. Taylor, "Nuclear Tests and Nuclear Weapons" in Benjamin Frankel (ed.), *Opaque Nuclear Proliferation: Methodological and Policy Implications* (New York: Frank Cass, 1991). Taylor is one of the leading American nuclear weapons designers.
28. The talk was that such an American offer was "on the table" in the third round of the Jaswant Singh-Strobe Talbott Talks in Delhi held on 20-21 July 1998.
29. Brennan and Halperin, "Policy Consideration of a Nuclear Test Ban", n. 23, p. 254.
30. Robert Jervis, Richard Ned Lebow and Janice Gross Stein, *Psychology and Deterrence* (Baltimore and London: The Johns Hopkins University Press, 1985).
31. Typically Subrahmanyam thinks small, recommending the international standard warhead of 125 KT size. See his "Nuclear Force Design and Minimum Deterrence Strategy for India" in Bharat Karnad (ed.), *Future Imperilled: India's Security in the 1990s and Beyond* (Delhi: Viking, 1994), p. 190.
32. This concept, originally Herman Kahn's, was of pivotal importance to his theory of "the escalation ladder". See his *On Escalation: Metaphors and Scenarios* (New York, Washington and London: Frederick A. Praeger: Publishers, 1965), p.290. For an informed commentary on this concept, refer Lawrence Freedman, *The Evolution of Nuclear Strategy* (New York: St. Martin's Press, 1983), pp. 218-221.
33. Subrahmanyam thinks that 60 weapons would deter even a 100 weapons strong thermonuclear Pakistani arsenal, and rejects the escalation dominance aspect as flowing from "the conventional nuclear strategic thought which is based on warfighting." See his "Nuclear Force Design and Minimum Deterrence Strategy for India", n. 31, p. 190.
34. The most recent example of this was in the 1996 Taiwan Straits crisis when the Chinese missile forces refused to be cowed down by the US Seventh Fleet aircraft carrier task forces ingressing into the proximal waters. It was a textbook case of nuclear "standoff". See Barton Gellman "New US-China Ties Are the Fruit of '96 Shift in Policy", *Washington Post Service, International Herald Tribune*, 23 June 1998.
35. The Harvard Nuclear Study Group: Albert Carnesale, Paul Doty, Stanley Hoffmann, Samuel P. Huntington, Joseph S. Nye, Jr., and Scott Sagan, *Living with Nuclear Weapons* (New York: Bantam Books, 1983), p.34.
36. The most comprehensive data source on the effects of nuclear weapons is Samuel Gladstone (ed.), *The Effects of Nuclear Weapons*, Rev. edn., (Washington, DC: US Atomic Energy Commission, 1964).

37. Brennan and Halperin, "Policy Considerations of a Nuclear Test Ban"; p. 252.
38. The 60 weapons figure was offered by K. Subrahmanyam. See his "Nuclear Force Design and Minimum Deterrence Strategy for India". The 150 figure is General Sundarji's. See his "Imperatives of Indian Minimum Deterrence", *Agni (Studies in International Strategic Issues)*, May 1996, p.21.
39. General K. Sundarji has written about a nearly all missile deterrent force. See his "India's Nuclear Weapons Policy" and "Imperatives of Indian Minimum Deterrence". Subrahmanyam, likewise, has talked only of a mixed force of aircraft and missiles, see his "Nuclear Force Design and Minimum Deterrence Strategy for India". There has been little detailed analysis in either of their writings.
40. Interview of Defence Minister George Fernandes, *Jane's Defence Weekly*, 1 July 1998.
41. An India-Pakistan nuclear imbroglio is a staple Western fear. For recent samples of such scare scenarios in the popular literature, see Col. Trevor N. Dupuy, *Future Wars: The World's Most Dangerous Flashpoints* (New York: Warner Books, 1992), Chapter 2; and in the specialist field, see Ashley Tellis, "Stability in South Asia" Documented Briefing, *RAND Corporation*, 1997.
42. For an analysis in some depth about the organic linkages between the two countries and of their mutual non-hurting and "non-violent" warfighting methods, see Bharat Karnad "Key to Peace in South Asia: Fostering 'Social' Links Between the Armies of India and Pakistan", *Round Table, The Commonwealth Journal of International Affairs*, April 1996. A version of it — "Key to Confidence Building in South Asia: Fostering Military-to-Military Links" — was published in *USI Journal*, April-June 1996.
43. Much of the sabre-rattling — it is only tongue rattling, really — by Pakistani officials and ministers in the period before and after the nuclear tests, was driven by fear. This is evident, for instance, in foreign minister Gohar Ayub Khan's interview to *Outlook*, 1 June 1998.
44. On fears of nuclear instability see Neil Joeck "Maintaining Nuclear Stability in South Asia" *Adephi Paper No. 312* (London: IISS, 1997). The point about the "indirect threat" is made by Eric H. Arnett, earlier of SIPRI. See his "Choosing Nuclear Arsenals: Prescriptions and Predictions for New Nuclear Powers" in Benjamin Frankel (ed.), *Opaque Nuclear Proliferation: Methodological and Policy Implications* (London: Frank Cass, 1991), p. 169.
45. "Sanctions may not stop arms race: Celeste", *Hindu*, 20 July 1998.

46. Both Subrahmanyam and Sundarji are for nuclearising the *Prithvi* missile. See the former's "Nuclear Force Design and Minimum Deterrence Strategy for India"; pp. 185-191; and the latter's "India's Nuclear Weapons Policy"; p. 181.
47. The "threat" from Third World long range ballistic missiles is a stock fear in US official circles. See Janne E. Nolan, *Trappings of Power: Ballistic Missiles in the Third World* (Washington, DC: The Brookings Institution, 1991). The CIA has routinely warned about this supposedly developing threat. See the Congressional testimony of Paul Kriesberg, a former Central Intelligence operative in India, for instance, who talked about the *Agni* posing a threat to US naval activity in the Indian Ocean. See "Agni may pose threat to US: Scholar" *Economic Times*, 6 May 1994. American legislators too have picked up this refrain. For a recent report of expression of such fears, see "Rogue' India threat to US, says Congressman", *AFP, Economic Times*, 20 August 1998.
48. Rodney Jones, *Small Nuclear Forces*; n.25, pp. 34-35.
49. The C⁴I² concept has been fleshed out more fully in a Paper — "Impact of Decreased Defence Spending on the Indian Armed Forces" — presented by me at the United Service Institution of India's National Security Seminar on 28-29 November 1996. See *USI Seminar*, No. 18, New Delhi. Also see Bharat Kamad, "Cost Effective Defence: Getting the Priorities Right", *Indian Defence Review*, January-March 1998.
50. For several years now, ISRO officials have been aware of the potential and confident that, if called upon to do so, the Polar Satellite Launch Vehicle could quickly be converted into an ICBM able to carry a five tonne warhead. See Raj Chengappa "Joining the Big Boys" *India Today*, 15 April 1993.
51. The head of the Central Intelligence Agency, R. James Woolsey in US Congressional testimony stated some five years back that "India has already demonstrated the ability to build guidance sets and warheads, the two key ingredients to convert the SLV into a ballistic missile." See C. Raja Mohan, "CIA assessment of India's n-programme", *Hindu*, 15 October 1993.
52. For the most recent example of such thinking, see Eric Arnett, "Test of Endurance" *Newsline*, (Islamabad), June 1998. See his earlier attempt roughly along the same lines; "Choosing Nuclear Arsenals".
53. General K. Sundarji "India's Nuclear Weapons Policy"; pp. 181-186.
54. Jones, *Small Nuclear Forces*, n.25, p. 22; Arnett "Choosing Nuclear Arsenals", pp. 156-157.

55. Subrahmanyam, "Nuclear Force Design and Minimum Deterrence Strategy for India"; n. 31, pp.189-190, 193.
56. According to the *Jane's Defence Weekly* the indigenous Indian nuclear submarine will join service by 2007. See "India's N-sub by 2007", *Hindustan Times*, 24 June 1998
57. Alexander Nicoll, "The disappearing act" *Financial Times*, 23-24 May 1998.
58. Hopkins and Hu (eds.), *Strategic Views from the Second Tier*, n.20.
59. Useful information about possible Chinese targets is found in Brig Nair, *Nuclear India*, n.16, see Tables 8.4 and 8.5, pp. 149-151.
60. The names and locations of the major Chinese nuclear and conventional arms production centres may be found in John Wilson Lewis and Xue Litai, *China's Strategic Sea Power: The Politics of Force Modernization in the Nuclear Age* (Stanford, California: Stanford University Press, 1994), pp. 80-81, 103.
61. Herman Kahn, *On Thermonuclear War* (Princeton, New Jersey: Princeton University Press, 1960), pp. 482-483.
62. Washington think-tanks make this point about the likely dangers to small Indian and Pakistani nuclear arsenals from each other. See Steven Erlanger "The New Cold War in South Asia", *New York Times Service, International Herald Tribune*, 13 July 1998. But the fact is the danger to these arsenals is more from the US and other established nuclear weapons states.
63. In the mid to late-80s, the Rajiv Gandhi government apparently had in mind "a balanced minimum deterrent". See Subrahmanyam "Politics of Shakti: New Whine in Old Bomb" *Times of India*, 26 May 1998.
64. Subrahmanyam, "Politics of Shakti". More recently, General Sundarji has scaled down the costing figure drastically to Rs 2,760 crores for 150 weapons, for a *Prithvi-Agni* missile force. See his "Imperatives of Indian Minimum Deterrence", n.38, p.21.
65. Subrahmanyam, "Nuclear Force Design and Minimum Deterrence Strategy for India", n.31, p. 193.
66. *Ibid.*, p.193.
67. The unit cost of a nuclear device has been given by an authoritative source as Rupees one crore by former chairman, IAEA, Dr P.K. Iyengar. See "N-arms cheaper than conventional weapons", *Hindu*, 19 May 1998. Rupees 3 crores is estimated as the cost, for instance, of a *Prithvi* SSM. See "India to Test New *Prithvi*" *Aviation Week & Space Technology*,

29 June 1998. But the cost computation in this chapter owes most to the extrapolations from the \$6.4 million figure at 1975 rupee value for design and manufacture of a single plutonium weapon worked out by N Seshagiri. See his *The Bomb! Fallout of India's Nuclear Explosion* (Delhi : Vikas, 1975), p. 69.

68. Private communication with Dr Arjun Sengupta, former Member of the Planning Commission. He computed the figure as ten times the weaponisation cost estimated by Subrahmanyam at Rs 7,000 crores over 10 years. I have linearly trebled this figure for the next 30 years.
69. *Economic Survey 1997-98* (Government of India: Ministry of Finance, Economic Division), p.2.

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The National Security Environment and Nuclearisation

LT GEN R SHARMA, PVSM, AVSM (RETD)

The nuclear explosions by India and Pakistan in May 1998 sent 'shock waves' round the world changing the international equation irreversibly, and adding a new dimension to the South Asian security environment. Since Pokhran II started the chain reaction, the event has raised - besides a national euphoria - a serious concern about India's changing security environment. The wisdom of the act has been questioned. Were the 'earth-shaking' decisions by the BJP Government based on genuine security concerns? Or were they (BJP) guided in their act by petty political considerations, to play on the public sentiment and buttress their shaky coalition government as also to raise their image in the international scene as a strong nationalist government.

The debate would drag previous governments into it. Had the earlier governments gone woefully wrong in their appraisals of national security needs, neglecting the country's defence preparedness! Perhaps, earlier governments were conditioned by the unique situation prevailing on the subcontinent, where symmetrical, covert nuclear capabilities existed between India and Pakistan. And that they considered it unnecessary for India to go 'overt' in their nuclear capability - driven by a sense of complacency, or they considered the risk of sanctions too debilitating for the Indian economy.

Security environments do not change overnight nor are reviews required of national security on a day-to-day basis. Yet, when history writes a new chapter as it did in the early 1990s with the disintegration of the USSR, dismantling of communism in East Europe, balkanisation of Yugoslavia and the Gulf War of 1991, every nation-state, including India, needed to undertake a deliberate

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long-term review of its strategic environment in the new emerging world order.

THE NEW WORLD ORDER

The emerging world order would have direct and indirect impact on our national security, and certain new factors have to be taken into account in a review of the regional security perspective.

- (a) The dismantling of the USSR has cost us a strategic ally, and a source of military hardware and technology, earlier available to us at low political price. Now we need to ensure our national security by indigenous capability.
- (b) In the emerging 'Unipolar' world order, America the only 'superpower' is imposing its perceived international order on the world and eroding the role and relevance of the UN.
- (c) There is a new and narrow 'threshold of intervention' by the UN, in reality the US; Article 2 of the UN Charter - non intervention in the domestic affairs of a member state is no longer respected.
- (d) US foreign policy, though professed on their fundamental pillars of promoting democracy, free market, human rights and non-proliferation, has in fact shifted to a "High Commercial Foreign Policy", as the immediate strategic interest.
- (e) China is being accorded a new status and prestige at the behest of the US, while Russia's role is being diminished in the international order.

India's threat perceptions had been based on an obsessive Pak-orientation, coupled with China's military capability in Tibet. India has now to take into account the new players in this region, reviewing their strategies, capabilities and interests. The US today must be considered a South Asian Power as well, with its strong presence in Diego Garcia. China must be viewed in a wider perspective, with its long nuclear reach and expanding presence and interests in this region. All this must be seen in the diminishing

influence of Russia in the region, and a growing nexus between USA, China and Pakistan. The external threats must be viewed in the growing internal insurgencies within India, aided and abetted by foreign influences.

REGIONAL SECURITY ENVIRONMENT

USA

The Americans have devised a 'Regional Security Strategy', maintaining posture, presence and ability to respond to crisis situations in any region. The endeavour is to co-opt regional strategic partners and share responsibility to meet adverse contingencies. America views China as a future major power and has engaged it in a co-operative mode as a regional strategic partner; depending on the Chinese to exert influence and intervene/arbitrate in Asia's conflict areas. Clinton has accorded the 'most favoured nation' status to China for enhancing trade ties - viewing it as a booming market and easier to trade with an authoritarian regime, not constrained by political hurdles as in India. The 'human rights' rhetoric for appeasing the US Congress is relegated to a lower priority.

The Americans earlier viewed India as a Soviet surrogate. In the changed scenario, they regard India as an important player in the region, more so for economic reasons. There has been an ongoing Indo-US military co-operation on a low key with the US Pacific Command. However, India was never considered by the US as a 'counterpoise' against China, or as a strategic partner. US laid no special emphasis on India's democratic system as a factor for having closer ties. American condemnation of the nuclear testing, followed by economic sanctions, has been officially even-handed, but actually with a distinct tilt towards Pakistan.

Pakistan is an old strategic ally of the US, and has served well in the region. The US views Pakistan with continued strategic interest, as the latter provides access to the 'oil-rich' areas of Central Asia. Pakistan, regarded as a moderate Muslim country, would also serve to contain and reach out to fundamentalist Iran. Kashmir is high on the US agenda, not merely because of the

affinity with Pakistan, but also because of America's strategic interests in the region historically evident from the time the dispute started. The US has openly suggested 'third party' intervention by China, much to the chagrin of India.

America's recent conciliatory overtures to Iran is again a deliberate attempt to draw in oil-rich Iran from isolation and to engage it in co-operation, thus dispelling Iranian insecurities and keeping them away from nuclearisation.

China

President Clinton's recent visit to China has been most encouraging for the Chinese Government, which has been made to feel a part of the big league after the bestowal of regional status and responsibility on them. Presently China is engaged in a major economic build up. However, modernisation of their armed forces is also among four key areas of their policy.

China is already a 'Medium Nuclear' power with limited triad second-strike capability, given due recognition by the Americans. China is also expanding its military presence around India's borders and seas. Its efforts to develop the bases of Akyab in co-operation with Burma and the alleged facility in Coco islands are a manifestation of a new policy-projecting power outside their territory. China has an on-going border dispute with India, and has condemned our nuclear explosion in the most strident terms. China views India as a long term rival, and Pakistan as an ally. It is likely to openly support Pakistan in a future conflict with India - increasing our vulnerability on two fronts.

Pakistan

Pakistan has possessed covert nuclear capability since the late 80's. The Chagai nuclear tests have afforded Pakistan an opportunity to increase its leverage in international politics. They have created the desired impact on the Muslim world, which will woo Pakistan for nuclear technology and military alliances, particularly Iran, Saudi Arabia, Kuwait and Libya. Pakistan will weaponise at a faster pace with Arab money and Chinese assistance.

The emerging scenario will be exploited by Pakistan to internationalise the Kashmir dispute, raising the ante in the on-going proxy war, even indulging in brinkmanship to focus the world's attention on the subcontinent. It will also continue with pro-active ISI involvement in India's troubled states in a serious effort at balkanising India. Adoption of an open hostile attitude towards India, hereafter, would serve Pakistan's strategic aims better.

Internal Threats

The 'seige within' is as serious a threat to India as the external threats and pressures increase. The number of insurgent movements within the country are to a large measure created by bad governance and bad politics by the Centre and states - exploiting religion, caste, and ethnic sensibilities of the people. The internal threats get aggravated by external aid and abetment by hostile neighbours, as also by demographic shifts in certain states, especially the North-East.

THE IMPACT OF NUCLEARISATION

On 11 and 13 May 1998, India made history by carrying out nuclear testing of a thermo-nuclear device, as also other tests including sub-kiloton explosions. Pokhran II was directed towards 'weaponisation', as the PM affirmed, and was considered necessary for refining our technology to acquire strategic and tactical nuclear capability. Pakistan's 'Chagai' explosions brought their nuclear capability in the open. Now India and Pakistan have forced their way into the nuclear club. The emerging symmetry with declared capability by both countries is less dangerous than an undeclared 'covert' nuclear situation which lent to greater insecurity, unpredictability and furtive acts.

It is now known that Pakistan had weaponised its nuclear deterrent by 1990 and the control vested with the army - as stated by its former Army Chief General Aslam Beg. This is confirmed by the UN's Disarmament Research report of 1990. Thus the security environment in the subcontinent warranted that India advance from a 'recessed deterrence' posture to a 'minimal deterrence' state. And over a period of time this is to be upgraded to a limited second-strike capability to match the Chinese nuclear threat, not in numbers, but in versatility of delivery systems.

The BJP had consistently demanded that India should exercise its nuclear option, and this was a major issue on that party's agenda. Thus before giving the 'go-ahead' for nuclear testing, the PM would have based his decision on 'realpolitik' in the emerging geo-political scenario in the region. A matter of major national concern would not be left to impulse, or traded for petty political considerations. The BJP Government was also not totally unaware of the likely effects of economic sanctions that would follow the 'act'. In 1994, the Narasimha Rao Government undertook an exercise to examine the likely effects of US sanctions on India's economy. The BJP must have been made aware of this upon assuming the reins of power.

However, the Congress Government, due to lack of confidence, missed the opportunity to undertake these tests in 1995. Doing so then, along with the French and Chinese explosions, could have considerably lessened the international political and economic fall out. Unfortunately the BJP has had to take the step, when its political standing is fragile in the coalition Government. And it has drawn serious criticism from other political parties for mishandling the international fall out. However, the BJP's stand on nuclearisation has been overwhelmingly acclaimed by the people of India, restoring confidence and responsibility on the BJP Government, and vindicating its position.

Impact on our Foreign Policy

Nuclearisation of the sub-continent has changed the security environment, as also the international order, irreversibly. That the nuclear hegemony of the P5 has been broken, that too by two Asian states, will never be acceptable to the former. The US and the G8 have stated in the strongest terms that India and Pakistan should unconditionally sign the Comprehensive Test Ban Treaty (CTBT) and the Non Proliferation Treaty (NPT) and also that they must refrain from weaponising.

In the earlier deliberations at the Conference of Disarmament at Geneva, India was not totally opposed to the CTBT, but focused upon the following points : it was not linked to disarmament; it permitted sub-critical laboratory testing, enabling qualitative proliferation by the P5. The impasse was created by China, when

it insisted on 'The Entry into Force' clause which made the coming into effect of the treaty conditional to India signing the CTBT.

The CTBT and 'Fissile Material Cut-off Treaty' (FMCT) are in fact corollaries to the NPT. Accordingly, the Indian stand justifiably is that India could sign the CTBT if accorded a 'Nuclear Weapon State' status, suggesting a change in the NPT. The NPT is indeed flawed and outdated and did not warrant extension in its present discriminatory form.

- (a) It perpetuates nuclear hegemony of the P5.
- (b) It violates the sovereign rights of nation states by not permitting others to go nuclear, leaving them without adequate security guarantees.
- (c) It discriminates in the safeguard measures (Article III), making it mandatory for non-nuclear weapon states to open their civilian nuclear installations to international inspections.
- (d) Reduction of nuclear weapons by nuclear weapon states (NWS) is suggested in good faith. The P5 have in fact tripled their capability, and have themselves been the main proliferators.

The Indian stand is principled, convincing and ethical. Yet in the present climate of the world order, the P5 will never accept a change in the NPT status. They would do their utmost in condemnations and punitive measures to deter anyone from going nuclear. There is a possibility that the US would adopt a 'step-by-step' approach, and as an immediate step insist that India sign the CTBT. The US concern is that if the treaty does not get ratified, others and especially China may find reasons to resile from the CTBT. India may consider signing this treaty now that we have acquired sub-critical testing capability, provided the American agrees to lift the sanctions. The key to getting around US sanctions is the US Congress. India must make effective diplomatic moves to get Congressmen to side with India in lifting sanctions.

There is need to undertake serious diplomatic initiatives to put across India's point of view to foreign powers and the international corporate sector. High level delegations composed of

select dignitaries, with the necessary expertise and media-savvy skills, should be sent abroad to project India's case forcefully and convincingly. These delegations should target the major powers that matter - France, UK, Russia, Japan and Germany, who could all influence the Security Council. Similar delegations should also be sent to the Second World, especially the Middle East countries who wield 'Oil-power' leverage in the world. NAM countries are equally important, as they are likely to be more understanding of India's position to project a more unified view.

Another imperative in our foreign policy should be to engage Pakistan in constructive dialogue not only on Kashmir, but more so on 'nuclearisation' of the region. If 'recessed deterrents' by both have provided some guarantees against open conflict in the region, we can also live with minimal nuclear deterrent capabilities. Fuelling a nuclear or a conventional arms race in the sub-continent would be disastrous for both. Talks with Pakistan should be to discuss bilateral issues, to avoid deployment of nuclear weapons, and work on safeguards to avoid any nuclear brinkmanship. It should be understood that if the two countries do not come to an understanding on nuclear issues, both will suffer economically and politically at the hands of other major powers. Further, India needs to engage China in dialogue, though on a different plane. The endeavour is to 'clear the air' to resume the border talks in a conciliatory environment, and improve relationship with better understanding between the two, to start with.

The Impact on the Economy

A minimal nuclear deterrence - besides the security needs - depends on availability of the fissile material and the financial resources of the country. It is assessed that India will need a stockpile of 15 to 20 warheads configured on Prithvi and Agni Missiles; a simple command and control system would be an imperative. This would cost upto Rupees 5000 crores, spread over three to four years. Nuclear submarine capability would double the expenses. Minimal deterrence is a relative term and is related to the political philosophy and the national strategic doctrine. Not easily quantifiable, parameters will necessarily be dictated by the political and economic costs that the nation is willing to sustain.

The 1998-99 Budget does not measure up to the emerging situation nor the fall out of the economic sanctions. The Budget has already made a negative impact with the depreciation of the rupee, the jittery capital market and Moody's down-grading of India's Credit Rating to BA-2, which would place external commercial borrowings at higher rates. The defence budget hike of 14 per cent is no increase in real terms. However, the enhanced allocation in the Plan expenditure for the 'Department of Atomic Energy' and Department of Space' by 68 per cent and 62 per cent, respectively provides financial resources for R&D efforts, enabling the 'Proto-type' stage for nuclear weaponisation. For establishing serial production of missiles, additional resources would be required.

In the meantime, sanctions slapped on us as per the Glenn Amendment will debar US military equipment, nuclear materials, as also dual-use technology exports into India. US Exim Bank and 'Overseas Private Investment Corporation' financing of Indian projects will be halted. The G8 have towed the American line, and since they together control 40 per cent of voting shares of the World Bank and IMF, loans from these institutions and other multilateral agencies will not be available for our 'infrastructure' projects. Loans and aid are permitted on 'humanitarian' grounds, and we see recent releases of funds to our states for health, education and other welfare projects.

The anticipated effect of the sanctions on our economy is somewhat underplayed by the Government - a figure of 2 billion US dollars non-availability is being quoted for this year. The repercussions on India's economy assume greater proportions with the loss of confidence among foreign investors, as also the likely cascading effect of the Asian Currency melt-down.

The Government has to adopt a more realistic, pragmatic and deliberate approach to the problem. The emerging situation has to be faced as a 'national emergency' for which the BJP needs to display flexibility and sagacity, evolve a national consensus, forego their 'Hindutva' image and present the image of a unified nation. Only then can they address macro-economic issues, which stand accepted in principle but are beyond implementation, because they are politically untenable in the

prevailing fractious climate. Some of the major issues which need pushing through are :-

- (a) Fiscal measures to reduce Government expenditure by cut-back in administrative size and structure; the 5th Pay Commission has recommended 30 per cent cut in the size of the government.
- (b) Privatisation of PSUs at faster pace; the Government is committed to rendering equity in the non-strategic sector to 26 per cent.
- (c) Deregulation and stream-lining procedures in the Centre and States, to facilitate attracting foreign investment in the infrastructure projects.
- (d) Reform in Company and Labour Laws for improving productivity in the industrial and services sectors.

On consolidating the domestic front, the Government must take recourse to pro-active diplomacy to improve India's image internationally, and be heard and understood by powers that matter. India has for years championed the cause of global disarmament. Our policies and views have not changed even now.

Nuclearisation has been forced on us by the 'technological' and 'economic' colonialism arising on the sub-continent, with new alignments acting against India's national security. America and China, the exponents of 'non-proliferation', have themselves turned proliferators to suit their strategic and economic interests. Our diplomatic thrust should be to expose the partisan and discriminating attitude of the members of P5, stressing the failure and irrelevance of the NPT in its present form.

In the emerging security environment in this region, a minimal deterrence was a strategic imperative. However India should not get consumed in a nuclear arms race as the concept of the 'Power shift' from military muscle to economic power is the new reality. India's long term strategy should be to improve economic performance and the pace of reforms, integrate its economy in the New International Economic Order and offer a booming market with favourable climate for trade to all countries. For it is indeed India's economic development and its friendly image in the world which will give it a lasting deterrent and a better peace dividend.

National Security : Strategic Command and Control Structures

BRIG VIJAI K NAIR, VSM (RETD)

"Role of India's Nuclear Forces: The purpose of India's nuclear forces is to deter the use of nuclear weapons against the State whether directly or as a means of coercion. It is essential that allies and adversaries alike understand India's nuclear weapons philosophy — that India would unleash a nuclear strike only if a nuclear strike is directed on it and that it is beyond the purview of a conflict waged through conventional means."

The management of national security is a function of an integrated, flexible and dynamic system incorporating an appropriate mix of human resources, software and hardware responsive to the existing parameters that govern the global security environment, and flexible enough to adjust to the transient nature of international polemics. There is a need to enhance the attributes of security management in keeping with the changes brought about by India's nuclear tests, wherein its nuclear strategy having moved out of the shadows of ambiguity would generate qualitatively new elements of confrontation. To optimise on its strategic deterrent forces, India has to bring into being a suitable weapons capability and a wide array of support arrangements that would make such a capability functional under adverse circumstances.

The conceptualisation of philosophy, formulation of plans, creation of wherewithal to implement those plans and management of assets, in and out of crisis, is predicated on a mature ability to conceive, plan and orchestrate the nuclear strategy in its entirety. This would be the function of the Command and Control

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organisation. Failure to have such a command and control system in position is tantamount to not having a nuclear deterrent to meet the imperatives of dealing with the articulated threat.

In the last five decades India has had to manage crisis situations through decision-making tools and instruments that have been overtaken by time and development of technology and doctrines. More often than not, past events concerned conflict with states that were non-nuclear weapon states with limited capacities of their own. Therefore, conflict management could be dealt with in a discretionary manner based on decisions that flowed from analysis of short or long-term options within a limited geographic matrix with defined qualifying factors on the Indian security environment. These occurrences have been a consequence of a disconnect in the understanding of long-term international relations and security related issues by the political leadership; lack of suitable institutions which could render proper advice and formulate appropriate options; and a propensity on the part of the political leadership to operate through informal non-specialised coteries.¹ Even where policy is implemented, there has been a general absence of mechanism to carry out mid-course modifications to fine-tune policies in keeping with the transient nature of the world order.

Now that India has overtly declared its nuclear weapons status, the entire thinking at all levels of government has to move beyond limited regional perceptions to encompass the global arena of nuclear weapons. Any development or occurrences in the nuclear field have a varying set of reactions from a wide range of players. Reactions that have to be catered for in the larger context of nuclear strategy formulation and crisis management in keeping with national security objectives.

Added to this is a demonstrated and indisputable reality of nuclear strategy — that the nature of nuclear forces precludes passing down the decision-making prerogative to any agency other than the highest authority in the country responsible for formulating and implementing national security strategy. The ultimate authority must lie in the hands of the Prime Minister. To arrive at the

strategic command and control infrastructure required by a nascent nuclear weapons regime, it is necessary to identify the implications of command and control at the head of State level.² These include :

(a) Instruments to analyse the threat, both quantitative and qualitative. This requires regular review of the global and regional strategic, technological and economic environs around which a state fine-tunes its ongoing policies and caters to the factor of transience in the global security environment.

(b) Evaluation of nuclear doctrine options covering all elements of the nuclear strategy including objectives, declaratory policies to communicate the national resolve to meet the demands of national interest and the employment policy in keeping with both.

(c) Matching the requirement of strategy by generation of appropriate weapons capabilities and support systems through legislating the wherewithal to be developed, produced and deployed.

(d) Evolving control mechanisms to ensure domestic security of nuclear forces and governmental directives to ensure these weapons are secured against actuation without constitutionally recognised authority.

(e) Evolving suitable command structures for the control and conduct of nuclear strategy to include: staff; communication systems; intelligence devices; codified 'fail safe' mechanisms; command centres; and, procedures to harmonise operations.

To perform these functions there is a requirement to create a viable strategic command structure. The major components of the system must include³:

(a) A National Command Authority.

(b) A Military [strategic] Command.

- (c) An integrated intelligence instrument.
- (d) National command centres.
- (e) Weapons, research, development and production complex.
- (f) Communication infrastructure.

National Command Authority (NCA)

Visible centralised political control is essential to communicate that Indian national policy decisions directly affect deployment or employment of nuclear forces. The Prime Minister, on whose executive command nuclear forces would be released, must head the NCA. To politically assist him in the decision making process, a system of consultation with the Cabinet Committee on Security Affairs [CCSA] would make an adequate instrument. In the Indian context, the CCSA is the ultimate decision making authority on issues concerning national security after which the responsibility passes on to the individual chain of executive authority. This would entail the authorisation to the Prime Minister to pass the test of compliance, i.e. confirmation by President - the 'Supreme Commander of the Armed Forces' - into an executive order to the Chairman of a Joint Chiefs of Staff Committee [JCSC].

The Prime Minister and the CCSA require specialist advice to analyse: threat assessments; development of nuclear policy options; finalisation and approval of employment policies and targeting plans; planning development of weapons capabilities and resource allocation to match the strategic objectives; collation and synthesis of intelligence; policy for security of nuclear forces; cost analysis and prioritisation of resource allocation; etc.

To meet this requirement there is a need to constitute a National Security Council [NSC] that would provide this specialist staff support, unencumbered with the day-to-day clutter of crisis management of governance. The head of the NSC could very well be an elected or nominated member of the Lower or Upper houses of Parliament, appointed by the Prime Minister, and given ministerial status. The logic of this recommendation lies in the need for

an independent channel for advice that is not impinged upon by the problems of the day-to-day management of governance. The NSC, a limb of the government must comprise of serving specialists from within the system so that accountability and responsibility can be properly designated. It requires a comprehensive staff, incorporating expertise in a wide range of disciplines, to exercise its responsibilities effectively.

Implementation of policy and crisis management would be a function executed through the existing channels of Government emanating downwards from the Cabinet Secretary.

To ensure the Command and Control responsibilities of the NCA, there is a need for assured omni-directional communications to monitor, review and execute nuclear strategy. These communication and control systems have to be provided a certain degree of survivability and redundancy. To avoid the possibility of a decapitating strike, the nuclear command structure must cater for a number of alternative command centres co-located at Delhi and at selected Command Headquarters. They must be hardened to withstand all but accurate pinpoint nuclear strikes, which is beyond the current capabilities of both Pakistan and China. Command centres would depend heavily on line, radio and satellite communications. A fail-safe system of automatic redundancy based on delegation of authority also needs to be incorporated as a back up to the formal means of exercising command and control on execution of retaliatory strikes.

Military and Strategic Command

Militarily, centralised control provides clarity of purpose and unity of command while ensuring that nuclear forces are responsive, properly utilised, and integrated.

The NCA, by incorporating the Chairman of the JCSC as a member and the Vice-Chief of the JCSC as Principal Staff Officer of the NSC staff, would be adequately supported for military strategic advice. However, detailed strategic planning including targeting policies would be conceived and finalised at a military head-

quarters, which would also be responsible for executing command directions emanating from the NCA.

The employment policy and specific targeting lies at the core of the nuclear strategy. However, as nuclear strategies are a political function and not a military imperative, "Strategy is supposed to relate military assets to political purposes."⁴ Therefore, while the military would be required to carry out the detailed analysis of targets, it is the political leadership that is responsible to finally decide on and select options to meet the political contingencies at hand. This function would include approving target lists to be incorporated and the weapons capability to achieve strategic targeting objectives. If however delegation of authority underscores the nuclear strategy, then these options would need to have been evaluated and necessary employment decisions taken in advance so that those on whom authority would devolve, carry out the policy as decided in keeping with political expediency.

While the JCSC would have to be co-located with the government at Delhi, the element that would control and manage the nuclear strike must be secure from simultaneous decapitation along with the Chief Executive. The JCSC and the Strategic Nuclear Command Headquarters must have identical communication facilities. They would be out stations on the National Military Command Link [NMCL] emanating from the NCA and would be the controlling headquarters on the Strategic Nuclear Link [SNL] that would service the military requirements of the nuclear strategy.

Integrated Intelligence

The NCA requires comprehensive and continuous intelligence inputs to develop nuclear strategy, formulate options and carry out periodic policy reviews. The areas of criticality include: timely provision of intelligence about adversarial and other nuclear forces operating in the region including their development, characteristics and deployment; acquisition of target particulars required for target analysis and designation; early warning of hostile intentions, mobilisation, alterations in alert status; assessment of communication facilities; Research and Development thrust in the domain of

weapons design and delivery systems; assessment of civil military relations; the adversary's potential to monitor own forces, etc. India will have to revamp its extant intelligence organisations to meet these critical requirements, more so because of the stringent time constraints in a nuclear era. The specific areas that need the immediate attention of the NCA are:⁵

- (a) Harmonising the effort of the disparate intelligence agencies currently in existence.
- (b) Automating the entire collation process and linking it to the Joint Intelligence Committee [JIC] by means of real time voice and audio-visual data links.
- (c) Deploying suitable intelligence gathering satellites and making fundamental increments in the scope of satellite imagery.
- (d) Provision and deployment of early warning and surveillance technologies so that battle procedures for nuclear retaliation can be made operative.
- (e) Qualitative and quantitative increments in electronic intelligence assets to infiltrate inimical communications, decide electronic warfare's support and enhance the security of domestic electronic infrastructure.

Added to this is the need for security of own forces, equipment, and plans. To this end, the counter-intelligence effort will need to be substantially modernised. Strategy specific concepts and operational doctrine, specialised intelligence and security assets and 'state-of-the-art' equipment would have to be provided to the agencies given this responsibility. Certain legislations would have to be instituted.

Weapons Research and Development and Production

As indicated earlier, the NCA is responsible for ensuring that weapons capability is compatible with contemporary strategic

commitments. Considering the long gestation periods required to develop and field weapon systems and the extra-regional resistance that would come into play to neutralise modernisation plans, the NCA must institute well defined and comprehensive long-term, technological and production perspective plans to guarantee a weapons capability in keeping with declaratory and employment policies. To meet this obligation, the NCA would have to co-opt the Atomic Energy Commission [AEC] who's charter should be enlarged to cover: nuclear Research and Development including modernisation of nuclear devices; production, accounting for and securing fissile materials; production of warheads and delivery systems as directed by the NCA; acquisition of nuclear-related intelligence; assessment of future trends; and, cost analysis of options mooted by the NCA.

This aspect will be an ongoing charge of the Command and Control system that India institutes and therefore, must be integrated to deal with development, maintenance of assets, inspections for safety and reliability and to provide technical backup to the forces during implementation of strategy.

Communications Infrastructure

Command, Control, Communications, Computers and Intelligence [C⁴I] must be able to provide the appropriate political and military authority with a survivable, secure, and endurable C⁴I capability through which execution, direction and assessment of nuclear operations can be ensured at all times. These systems must be robust, redundant and rapidly recoverable.

Nuclear operations can be successful in achieving India's political objectives if they are designed for the limited task of retaliating to a nuclear strike on India or its military. The need to assess incoming missiles and launching strikes on warning or against counterforce targets is redundant. Therefore, the imperatives of C⁴I in the Indian context cannot and must not be viewed against widely published exotic paradigms created to meet the strategic imperatives of the original five nuclear weapon states (NWS).

The crucial denominator amongst the ingredients of the strategic command system is the ability to communicate despite the possibility of decapitation, EMP (Electro-Magnetic Pulse) and TREE effects. The NCA cannot develop plans or exercise its authority unless it is supported by a fail-safe, real time and secure communication network. In the US, the "NCA has been assured access to forty three different communication systems across the electromagnetic spectrum, all of them part of the World Wide Military Command and Control System."⁶ Yet the US has been constrained to go in for a major communications modernisation programme which will cost them more than India's annual defence budget five to seven times over.⁷ While there is no arguing the fact that India's nuclear strategy must be supported by a viable communication system, the reality that even the most technologically advanced nation has not been able to develop a system with the chances of surviving even the initial stages of a nuclear exchange, has to be taken into account.

Therefore, while designing and engineering an appropriate communications system, the NCA needs to take into account the nation's existing assets, technological horizons, gestation period of development, duality of purpose and economic endurance. It may be necessary to opt for an employment policy that would guarantee a fitting response to a pre-emptive nuclear attack despite inadequacy of communication assets.

With that in mind, the NCA must ensure development and deployment of the following :

- (a) Communication satellites providing real time voice and audio-visual data links based on ultra high and very high frequency bands. These should be provided from all civilian and military assets launched in orbit.
- (b) Extremely low frequency communication facilities to direct sub-surface forces.
- (c) Airborne relay stations to meet range limitations of equipment; alternate ground based radio and radio relay networks; and hardening of equipment installed in critical command centres.

- (d) A multiplicity of systems to provide a minimal degree of redundancy.

PRINCIPLES OF COMMAND AND CONTROL

Essentially the command and control aspects, by far the most important aspect of a nation's nuclear strategy, are founded on clear-cut principles. As applicable to the Indian paradigm, these are:

- (a) Authority and responsibility for the evolution and execution of nuclear strategy should be vested in the highest political authority, the Prime Minister.
- (b) Only the Prime Minister or his pre-designated successor can authorise the release of a nuclear weapon. To ensure that the Command and Control over nuclear forces is error free, the chain of command for the release of nuclear weapons must be clearly defined and given legislated authority.
- (c) There is a need to constitute a NCA headed by the Prime Minister to deal with all aspects related to national security, especially nuclear strategy.
- (d) The NCA should provide nuclear strategy options to the CCPA and the Prime Minister's secretariat. To do this it would be supported by a NSC comprising of designated specialists under the chairmanship of an appointee of the Prime Minister.
- (e) To guard against individual aberrations, the release codes should become available after at least two other individuals, the President as the Supreme Commander of all Military Forces, and the Chairman of the Joint Chiefs of Staff Committee, comply with the decision.
- (f) A number of National Command Centres should be created to ensure continuity in effective Command and Control of the nuclear strategy even while the country is under nu-

clear attack. Establishment of a Strategic Command Headquarters under the JCSC should provide one such independent headquarters.

(g) C⁴I infrastructure would need substantial improvements with a special effort to make communications redundant and increments in the electronic early warning components.

(h) National intelligence gathering needs to be harmonised to provide real time and meaningful intelligence for the decision making process at the NCA and to ensure the security of the full spectrum of development, production and deployment of nuclear forces in peace and in war.

(i) The AEC should be charged with additional responsibilities to ensure appropriate research and Development, production and modernisation of nuclear warheads and security of fissile materials and production facilities. They would also provide necessary inputs to the military and intelligence agencies to assist them in their tasks.

Conclusion

For nuclear employment to be successful, advanced planning and integration are essential. It is important that planners be mindful of the political objectives and consistency with national policy and political direction. Advanced planning, rather than dependence on sophisticated and expensive means of surveillance, is critical to the success of a retaliatory nuclear strategy as espoused by India.

An examination of the strategic command and control functions of a nuclear regime suggest the need to look at the systems prevalent in the US and Russia. Analysis of the problems of this critical area of nuclear strategy provides substantial inputs for the formulation of a strategic command and control policy and supportive infrastructure for a Third World nuclear power such as India. Keeping in mind domestic limitations and the limited nature of a retaliatory strategy as opposed to offensive strategies fol-

lowed, command and control systems must be configured to support the specific strategy spelt out by the political leadership and not directed to extra-strategic and complex requirements of nuclear operations as envisioned by the US and NATO.

Nuclear weapons have many purposes, but in the Indian context these are required to be used only if and when deterrence has failed, that is, when an adversary has executed a nuclear strike against India. If deterrence fails, strategic forces must be prepared to deliver the promised retaliatory retribution in accordance with political direction.

The command and control structures created by India must clearly signal to enemy leaders that retaliation is assured under all situations and that the loss would outweigh any perceived potential gain. As the executive phase gets activated only after a nuclear strike has been suffered and its attendant degradation of domestic capability, it is important to bear in mind that, "Proper command and control during the complexities of nuclear warfare is critical to the operation's success ... To maintain control over the execution of this release, a viable command, control, communications, and computer system is essential."⁸

"It is important during peacetime to set up a strategy for war that is functional immediately, and one that will achieve the objectives in wartime."⁹

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The Western Narrative : Western Nuclear Theology

REAR ADMIRAL RAJA MENON (RETD)

Nuclear Diplomacy

How did the world in 1990, come to possess 35,000 nuclear weapons? If it takes only one 20 KT bomb to flatten a city, what kind of a strategy, or the lack of it drove the two super powers into a race that finished at absurd or even obscene levels? Was nuclear strategy studied as dispassionately as the study of strategy demands? Or, is there hidden in the theology of nuclear weapons certain imperatives that command and compel countries into decisions that must in retrospect seem obscene? If Economy of Force is an accepted principle of war, what strategy could have driven the superpowers into creating explosive capabilities that could destroy the earth many times over. Was the terrible destructive power of these bombs approached with trepidation and humility or were they looked at like another six gun by another gun fighter. Much depends on the answers to these questions, for India today is roughly where the US was in 1952, technologically. The first hydrogen bomb had just been exploded; nuclear strategy and nuclear diplomacy lay largely ahead. If there is nothing to be learnt from the journey that the US government made after 1952, then India faces a difficult and lonely road. But the history of man is rarely created, in original. It is possible that the western narrative needs to be studied carefully, and a dispassionate appraisal made of the junctures at which the Western governments could have made better choices that could have led to nuclear security without absurdity. History is a contentious issue, and many governments interfere in its writing so as to shape the thinking of its people. The 'persuaders' in advertising would call it, the creating

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of specific cognitive frames of reference, where an event is 'seen' by the victim in a particular manner. Nevertheless, history must be written, to answer the question of 'what happened?' This chapter describes the unbelievable journey on the road from possessing two bombs to owning 35,000 bombs.

Some nuclear scientists, who had helped make the bomb, were struck by the enormity of what they had done even before Hiroshima. Some more were appalled by what happened to the Japanese victims of the 'Fat Man' and the 'Little Boy'. The former, led by James Franck and Leo Szilard¹, and the latter by Niels Bohr² made the first of many far sighted attempts to either control the spread of nuclear technology or to internationalise it. The Franck report went as far as to suggest the seeds of the ideas that are currently incorporated in the NPT, the MTCR, and the FMCT. The report received short shrift from a congressional sub-committee, which was fully briefed on the agonising background to the decision to drop the bombs on Japan. The committee was also made aware of intelligence estimates of the Soviet progress on nuclear research. As a result they resented the interference of scientists in a matter which they felt had become entirely political. The Baruch plan was a far bolder attempt to internationalise nuclear energy, technology and weapons. Baruch was an international businessman, seconded by Truman to put forward a plan to create an international atomic development authority. The plan was actually Bohr's creation and clearly understood the tensions in international politics that underpinned the development of newer weapons. Seeing that power rested in the hands of a few nations who constitute the Security Council, the Baruch plan proposed to keep atomic bombs in the control of an international body, which would report directly to the General Assembly, bypassing the deadlock possibilities of veto in the Security Council. The Baruch plan was received favourably by the UN, and the Soviets suggested two modifications. One was that the international safeguards would come into force only after the US (the sole atomic power) had destroyed existing stockpiles; the second was to retain the Security Council's veto.

This plan should be understood by Indian analysts, more

than by any one else, because there is a view in India that moral considerations in nuclear diplomacy was first introduced by India as part of Jawaharlal Nehru's foreign policy. In retrospect, it is difficult to apportion blame for the failure of the Baruch plan because the US had cobbled together the proposal without taking into confidence either the congress or the armed forces. True, the congress had defeated the May-Johnson bill³ in 1946, which included criminal penalties for US citizens disclosing atomic secrets, watering it down with the McMahon Act which merely forbade such transfers. In the history of nuclear diplomacy, it is necessary to place the Baruch plan in perspective, as the one that came nearest to achieving the most. The causes for the failure are revealing. Baruch openly stated that the time had come for states to relinquish some portions of their sovereignty, without which, national power could not be sacrificed. The nuclear plan was essentially subordinate to each nation's concept of foreign policy and where they stood in the spectrum of liberalism.

In retrospect, it would appear that the only attempt, which was partly successful in restricting nuclear arsenals, was Jawaharlal Nehru's proposal for a test ban in 1954. The accepted wisdom of a ban was a first step towards disarmament, which at first the Soviets opposed being unwilling to link the ban to any further steps. The US withdrew its stand on tying strings to the test ban in 1959 and talks got underway. The Soviet-American conference in Geneva proceeded for many years but the problem was the same—the Soviet disinclination to sacrifice a portion of its sovereignty to permit full freedom to an inspection team. Nevertheless the test ban talks continued in good faith for many years, because it did not question the morality of owning nuclear arsenals and therefore demanded no surrender of sovereignty in accepting a test ban, in principle. The mirror image of this situation was to be recreated in 1996 when India had to take a stand on a comprehensive test ban. In India's case, acceding to the CTBT would have meant a large sacrifice of sovereignty, since the country owned no nuclear weapons, whereas, in the Soviet- American case, it was merely a question of foregoing a technical upgradation to an established nuclear capability.

Early Strategy

Government policy and strategy does not necessarily coincide. They do on occasion, as when the German army was rebuilt in the 1930s to a certain strategy, which had been written about in the UK, but ignored by the other armies. Strategists are occasionally ahead of the government, but governments always believe they know best. The narrative of the development of nuclear weapons in the West is largely one that occurred due to government policy. Strategists attempted to influence it and were sometimes successful and sometimes not. The first of the great perceptive strategists of the nuclear era was Bernard Brodie, who in 1946 published, as the editor, an article on nuclear strategy that was actually accepted and followed, only fifteen years later.⁴ Brodie made four major predictions :-

- (a) The extraordinary power of the atomic bomb (A-bombs) would mean that no state would be able to guarantee the defence of its people against some bombs falling on their cities in war.
- (b) The present monopoly of the United States would be broken and nuclear weapon knowledge would proliferate.
- (c) The only defence against the bomb would be the ability to retaliate in kind. Its only role would be to deter war.
- (d) The protection of a country's nuclear assets would become the prime strategic motive in war.

Brodie was totally ignored in the 1940s. American war plans between 1945 and 1950 were extensions of the strategy that had defeated Germany. The Strategic Bombing Survey had just been published, which claimed to have crippled the German war machine between 1942 and 1945. Atomic bombs were to be used similarly to cripple the USSR over a period of time, while the conventional war was being fought in Europe. There was no central coordinating agency to articulate nuclear strategy, and in the absence of any clear directives, the Air Force, which had been given the task of dropping the only bombs existing, issued policy

statements. In early 1946, the Air Force chief declared that the role of the atomic bomb would be to terminate a conventional war, as had occurred in Japan. At the time, the stocks of bombs numbered about five, but were being produced at a rapid rate. In 1947, General Spaatz the Chief of Staff of the Air Force headed a study on bombs, and strategy. This was the first attempt to look at numbers, which stood at about 30. Strategy still specified the termination of a conventional war as its objective. The number of atomic bombs was very few and a tightly guarded secret, for the civilian scientific teams had been disbanded and military assembly teams not yet inducted. In 1947 it took 24 men two days to assemble one weapon⁵. In 1948 the Joint Chiefs of Staff prepared war Plan 'Half Moon' which articulated an expansion of war aims to 'crippling' the Soviet Union industrially. Seventy targets were chosen, and three atomic bombs allocated per target. In 1949, the growing number of bombs enabled Truman to direct the SAC to include the bombing of Soviet land forces on the borders of the USSR to prevent their westward advance⁶. At the beginning of 1948 the US had only 33 bombers capable of carrying atomic bombs to the Soviet Union.

Deterrence I : Prior to 1950, US strategy for the use of atomic weapons was also called Deterrence. It is important to define this deterrence I as it has no resemblance to what is today referred to as deterrence. Upto 1950, the US saw itself as the sole atomic power, with a serious conventional weapon inferiority. The White House also saw the USSR as an expanding empire with the stated aim of destroying the capitalist countries. In this scenario, it was expected that the Red Army would invade Europe and could probably not be resisted. The answer was to bludgeon Moscow and the home country into submission. The point to note is that, the probability of using atomic bombs was high in the strategy of deterrence, which hoped to deter the USSR from launching a conventional attack, but at the same time, saw no conflict in escalating the conventional war deliberately and purposefully into a war fighting strategy.

NSC - 68 : In 1949 the Soviets tested their atomic bomb, shortly after which Mao-Zedong came to power in Peking. Truman

responded by ordering the manufacture of the hydrogen bomb (H-bomb) in June 1950. In April he accepted the document called National Security Council or NSC-68, but did not approve of it until September 1950 owing to the outbreak of the Korean War. NSC-68 was a path breaker in strategy for many reasons, the most important of which are set out below⁷.

- (a) The political objective was defined as being the prevention of world domination by the Soviets
- (b) The USSR was estimated to build 200 A-bombs by 1954, a gross overestimate.
- (c) The USA would defend Western Europe conventionally also, since the US deterrence against conventional attack was not expected to work, owing to a possible nuclear stalemate, in the years to come.
- (d) The USSR would develop the capability to hit the USA, necessitating a continental air defence, in a few years.
- (e) To build up US forces in Europe in times of crises, the Atlantic and the UK must be defended.
- (f) To commit the US to a nuclear launch in the defence of Europe, US troops would be stationed in Germany, as a trip-wire.

NSC - 68 was a watershed in clear strategic thinking, and most parts of it remained valid until 1986, when the US Navy published a maritime strategy that departed substantially from preserving the SLOCs in the Atlantic, in the belief that the Soviets either did not want to or could not interdict them. The hydrogen bomb, was not tested until March 1954⁸. In the meanwhile the Soviets tested a genuine air deliverable H-bomb in August 1953, which fact was kept from the American public.

Arsenals: When Eisenhower became president, the custody of the nuclear cores of all bombs were with the scientists. This practice ceased and the military were given custody of over 90 per cent of all nuclear weapons with the cores inserted. The US arsenal had grown in leaps and bounds as a reaction to the two

mistaken intelligence estimates about poor Soviet technical capability in making the A-bomb and later the H-bomb. The SAC came up with a perceived 'bomber gap' which turned out to be false, but by then 400-B 52s had been built. Vertical proliferation had already begun to grow out of control for the reasons set out below.

- (a) The SAC which was the only truly strategic delivery service, commissioned the B 52 which could carry six bombs each. As a result the strategic capability went up from 1,000 bombs in 1953-54 to 1,800 by 1956. The SAC already had 1,400 - B 47s.
- (b) Inter-service rivalry permitted the US Army and Navy into competing for a share in the nuclear delivery capability, without which their share of the defence budget had fallen below that of the Air Force, which averaged 40 per cent.
- (c) The Army insisted on tactical nuclear artillery shells to win the land war, the Navy for tactical nukes to be used to fly shorter distances to Soviet targets. Both were approved, and tactical bombs were also given to Air Force fighter bombers. If the SACs mythical 'bomber gap' led to false premises, so did the Army's claim that the Soviets fielded 175 divisions with a manned strength of 2 million men. This they were unable to prove later on when challenged by McNamara to show how the US with a million men had only 26 divisions. Similarly the Navy claimed the Soviets had 600 operational submarines which were not only untrue, but the larger numbers were incapable of ocean patrols.

Massive Retaliation and the New Look : The Eisenhower administration made a calculation which showed that developing newer bombers, more nuclear weapons and air defences was cheaper than raising the army strength to block a Soviet thrust into Europe. The intelligence estimates also showed the US clearly ahead in bomber and bomb technology. Eisenhower deliberately kept troop strength low so as to convey to the Soviets that the US

had no option but to use nuclear weapons on the Russian heartland, if threatened in Europe. The stalemate of the Korean War resulted in Dulles giving his famous speech, using an expression which came to be known as the doctrine of Massive Retaliation (MR). The President issued a denial the very next day that the US intended to go to total war for any and every minor transgression. In actual fact MR was never a strategy according to the government, but the analysts and the press had a field day criticising it.

The McNamara Years : During Eisenhower's tenure, the defence budget grew from \$ 14.3 billion to \$ 49.3 billion (14 per cent of GNP); the armed forces grew from 1.4 million men to 3.6 million as a result of the Korean war. With rearming, and the budget seemingly out of control, the administration came out with a Basic National Security Policy (BNSP), which acted as a guide to the Joint Chiefs of Staff to prepare a Joint Strategic Objectives Plan (JSOP). In addition, the administration effected the great changes in the structure of the Pentagon by divesting service chiefs of operational responsibilities and transferring it to the Chairman, Joint Chiefs of Staff. The Secretary for defence was given legal powers to preside effectively over the Pentagon. Some advantages were seen, such as a stabilising of the defence budget at 10 per cent of the GNP, the division being 47 per cent to the Air Force, 29 per cent to the Navy and 22 per cent to the Army. But deep dissensions racked the JCS, as reported in General Taylor's revealing book, *The Uncertain Trumpet*,^{10, 11} one of the first books that presidential candidate Kennedy read, while preparing his campaign. Kennedy came to power certainly as a result of his charisma, and the image of the New Frontiersman. Part of the untamed frontier to be conquered was the 'missile gap' which he accused the Republicans of having permitted to occur, with the USSR launch of the *Sputnik* followed by the first manned space flight. Kennedy felt that overwhelming nuclear power had failed to impede communist expansion in Korea, Indo-china, Hungary, Suez, Lebanon, Quemoy, Tibet or Laos. Kennedy became the president in November 1960 and he immediately called upon McNamara to be the Secretary of Defence. McNamara had just taken over the presidency of the Ford Motor company, to which he had moved from the US Army Air Force during the war. His war service was spent mostly in India organising the airlift to China over the Hima-

layas, and in doing so had exhibited his great managerial skills.

The first review of the situation indicated that the missile gap was a myth, because although the Russians had made a bigger rocket, they were far behind in technology and production facilities. However, both Kennedy and his Secretary of Defence agreed that American nuclear strategy had so far failed. If Washington could at all predict the future scenario, it would be one where the Soviets would start aggression in a small way, that could never invite a nuclear response. The aggression would then be expanded in a manner referred to as the Salami-slicing technique. Massive Retaliation was not credible under such circumstances, which could only be countered first by conventional forces, and shortly later by tactical nuclear weapons. McNamara set in motion certain measures, on the understanding that budgetary constraints would not hold him up. By 1962 the defence budget had gone up to \$ 50.5 billion, an all time high. With this money he planned to execute a quick fix followed by a longer look at the process of defence planning. In 1961, a strong school of strategists suggesting that Flexible Response was the safer answer to Soviet nuclear capability had already burgeoned in Washington circles. Their thesis ran as follows:

- (a) There were too many circumstances in which deterrence might not work.
- (b) If it came to nuclear war, the number of lives lost, must be minimised.
- (c) Limiting damage to the US cities and population is best achieved by attacking Soviet missile and bomber bases.
- (d) Publicly proclaiming the strategy of attacking Soviet nuclear assets would force the Soviets into a counterforce strategy reducing the targeting of American cities. Whether the Soviets were successfully induced into such a strategy or not, it made little sense to destroy Soviet cities first when they could be taken out later.
- (e) A thermonuclear war may not be the end of civilisation and some force is required to be retained at the end.

Competing with the strategy of Flexible Response were the two other strategies. The first was a continuation of the Eisenhower doctrine – to launch all nuclear forces from tactical to strategic in one great spasm, or threaten to do so if the enemy transgressed clearly demarcated areas of vital interest to the United States. The second was the theory of Minimum Deterrence. This strategy suggested a well protected second strike capability, like several hundred Polaris submarines aimed at Soviet cities as an indestructible deterrent. Such a strategy would be stable, would not provoke the Soviets and would reduce the defence budget by at least \$ 15 billion. It is interesting to note that the strategy of Minimum Deterrence was eliminated not because of any inherent flaws, but because it did not secure the 'overseas interests' of a global power¹¹. One can only surmise from this, that what was being referred to was a tactical- nuclear- supported conventional arms capability, to deter piecemeal or creeping communist expansion in areas other than Europe. In retrospect, it also seems unlikely that having come to power on accusations that the Eisenhower administration had not been energetic enough, McNamara and Kennedy would have presided over the reduction of the American nuclear arsenal from about 5000 to a few hundred. In making his choice, McNamara stated that the strategy of the US would be to weather a nuclear strike, and still possess the capacity to utterly destroy the Soviet Union; but that the command and control system would be sufficiently damage proof to enable the response to be deliberate, and under the authority of the President¹². The last part was a major departure from NSC 162/2 issued by Eisenhower which authorised local commanders to release nuclear weapons on their own authority, if attacked by the USSR¹³. During McNamara's first eighteen months in office he raised US capabilities as follows for the reasons stated:

- (a) Increased the size of the army by 250,000 men and by reducing the time for mobilisation, the US could field 10 additional divisions at eight weeks notice. This was done to upgrade the conventional opposition to the Red Army in Europe.
- (b) Brought the bomber force up to 1700, and *Polaris* missiles to 70 . The number of bombers on 15 minute alert was increased by 50 per cent.

- (c) Increased the number of tactically equipped fighters to 800 out of a total of 2000.
- (d) Brought up the ICBM force to a strength of 400¹⁴.

The SIOP, Counterforce and Assured Destruction. Until Eisenhower created the Joint Strategic Target Planning Staff (JSTPS) in the mid fifties, the navy and the air force had independent targeting plans. It was well known that some targets would be bombed twice. The SIOP was born in December 1960 before McNamara took over, to coordinate the targeting by ICBMs, SLBMs and bombers. In 1961 and 1962, the vastly increased arsenal made it possible to include military and industrial targets. When the JSTS was established, the head of the SAC was also its head with an admiral as his deputy. In 1962 the JSTS was reconstituted with 269 seats of which 219 were with the Air force, 29 with the Navy and 10 with the Army¹⁵.

IN 1962, McNamara first proclaimed the 'no-cities' doctrine. This was made possible by the advances in satellite surveillance capabilities making it possible to pinpoint missile launch centres. In the event that the Soviets could not be deterred in Europe, and the attack was judged as major, the US stated that it would launch a strike against the Soviets' nuclear launch capability and military forces without targeting his cities. The increasing numbers of missiles becoming available made it possible by 1964 to talk in terms of a second strike assured destruction capability. The pluses and minuses of the counterforce strategy were :

COUNTER FORCE

PLUS

An authoritarian regime may place more value on its war making capability and accept losses in civilian life. A counterforce strategy strikes at the power base of authoritarian regimes.

MINUS

The stability of deterrence is reduced as the enemy has to strike first to avoid losing his nuclear forces.

If deterrence fails and a nuclear launch is necessary, a first strike against military targets is the least immoral.

If it is feared that the enemy might launch an attack first, our own leaders might prefer to launch first.

Destroying the enemy's nuclear capability is a better strategy as it aims more to protect our people than to kill enemy civilians.

By believing that after counterforce strikes there would be a lull, we might be tempted to treat nuclear war casually.

A counterforce strategy might induce the enemy to refrain from attacking cities and thereby reduce damage on both sides.

Later Strategy

Tactical Nuclear Weapons : These weapons came into being as a result of the objections that Oppenheimer and other scientists had to the development of the hydrogen bomb. They desired to go in the opposite direction and bring miniaturised nukes back into the battlefield. Their purpose was not to deter but to win battles and their targets were the same as for conventional weapons – armour build up, artillery, airfields and bridgeheads. Most of them were positioned outside the US, in carriers, ships in Europe. As soon as they were introduced, questions were raised in Europe as to who the beneficiaries would be. If used prior to an invasion, East Germany would be crippled, and if used afterwards, West Germany. The US administration did not bother much with this conundrum, having their hands full with the strategic weapons debate, but Kissinger published a book called *Nuclear Weapons and Foreign Policy*¹⁶, where he postulated that limited war could be won with nuclear weapons. Kissinger was probably not aware of two war games called Sagebrush and Carte Blanche played in 1955 where the effects of nuclear weapons on the battlefield was evaluated¹⁷, if the Soviets did not use them in retaliation. The effects showed levels of devastation far beyond what Germany had suffered in World War II. The Kennedy administration was never convinced of the utility of tactical nukes, but were forced to

retain them in Europe for two political reasons. First, the Europeans refused to raise the strength of conventional armies and second, the Europeans themselves demanded they be retained so as to 'couple' the US to the destiny of Europe. The Kennedy administration attempted to define the precise 'break' or 'pause' that would separate the conventional from the limited nuclear war, even to the extent of conceding some territory to the USSR. They also repeated the earlier war game, this time with Soviet nuclear participation. The simulation showed that up to 20 million would be killed as a result of an attack on military targets alone, and up to 100 million if cities were also attacked¹⁸. Despite all this the number of tactical nukes were increased during McNamara's time at the Pentagon.

Sufficiency and Finite Targeting : The replacement of Johnson by Nixon in 1969 and the induction of Kissinger, first as the National Security Adviser and then as Secretary of State saw the power and responsibility for nuclear strategy shift from Defence to State. Kissinger proclaimed that a strategy of sufficiency was adequate, if mutually agreed to by both parties. His definition of sufficiency was a renouncing of superiority as a strategic objective. Sufficiency differs from Finite Deterrence in that the latter theory holds that effective deterrence is achieved if a finite level of destruction can be guaranteed. In McNamara's day the finite level had been defined as 50 per cent of industry and 25 per cent of the population. This theory (sometimes called 'minimum deterrence') postulates that more than a minimum deterrence is destabilising in that the other side must believe that an attempt is being made to achieve a first strike capability. Finite deterrence between two powers cannot work unless both sides agree to permitting the other side to target population centres, and this strategy only requires large but inaccurate weapons. Critics of this policy aver that without a proper treaty, which is verifiable, finite levels of deterrence can neither be achieved, nor maintained. If finite levels can be maintained, they ask, why can't both states accept disarmament ? The other criticism is that under finite deterrence, a conventional war could progress unhindered, and therefore this strategy favours the side with the larger conventional capability.

Flexible Targeting and Counterforce II : The theory of flexible targeting in retrospect certainly appears to have little strategic merit, but needs elaboration only to get it out of the way. Schlesinger, the only civilian nuclear strategist who became secretary of defence to Nixon, discovered that he had more nuclear warheads than were needed for any kind of war and came up with Flexible Targeting. This strategy stated that the US as a global power may be attacked by a few nuclear missiles at some outlying asset, which would have to be replied to by the same handful of missiles. This strategy was never treated seriously. In the 1970s' the counterforce strategy which had been abandoned owing to hardened Soviet missile silos, came back into fashion owing to greatly increased accuracy of US continental missiles. The counterforce strategy was attacked vehemently by a growing number of anti-nuke academics who warned that the US might attempt a 'surgical' strike merely because it was now possible. We still however do not know whether the SIOP was actually modified as a result of the criticism – probably not.

PD – 59 and Countervailing Strategy : When Carter came to power in 1977, he wished to be seen as a president who could restore some order into world politics and the first step he took was to cut defence expenditure by five per cent. Three years later he retracted by ordering an 'annual' increase in the defence budget by five percent. This reversal had its motivation in the cold war. In 1978/79/80, the Soviets established themselves in Ethiopia and invaded Afghanistan. The Shah of Iran had fallen, and Iranian help to terrorism in the middle east had increased, apart from the volume of invective from Teheran. The US saw a major power shift, amounting to an encirclement of the strategic oil reserves in the Saudi peninsula and responded with a change in nuclear doctrine called Presidential Directive 59 (PD-59)¹⁹. This directive, the highlights of which were revealed at Secretary Brown's speech at the Naval War College, included :

- (a) The concept of a 'limited nuclear war' which could be fought against the backdrop of the US's assured destruction capability. It was perceived that a nuclear war might last weeks, and the US needed to 'shoot-look-shoot'.

(b) A countervailing strategy which believed in decapitating the Soviet leadership and removing the means by which the Kremlin could control its weapons and its people.

In retrospect, it would appear that PD-59 was made on the basis of some intelligence estimates about the USSR which have not been made public. According to the *Chicago Sun Times*²⁰, PD 59 aimed at creating internal dissension in the USSR by destroying only those geographical areas which allegedly supported Moscow. Countervailing was actually no different from counterforce and the critics repeated all the criticisms that had been made earlier against counterforce. The countervailing strategy probably had its origins in the belief that the opposition to the Kremlin was growing in society and if the leadership was annihilated, after which a 'pause' was made, encouraging results could be expected. It was probably a little early to operationalise such a belief, since the early days of Gorbachev were still eight years away. On the other hand it is possible that detailed information on the Soviet C³I system, allegedly all within the Moscow ring road, had just come to light and these made a target too attractive to ignore. A third possibility is that the distribution of the missiles in the triad were so unfavourable to the USSR's land based strategy that it was a matter of time before some US strategist pointed out that knocking out Soviet missiles would seriously disarm them, as the following table shows.

Table A : Distribution of Warheads, USA-USSR, 1981

<u>Triad</u>	<u>US</u> <u>%</u>	<u>USSR</u> <u>%</u>
Land based ICBM	24	75
SLBM	50	20
Bombers	26	5

National Security Decision Directive No 12 (NSDD 12) : In 1982, the Secretary of Defence Casper Weinberger asked the armed forces to prepare for a nuclear war, involving a series of limited exchanges spread over several months, and followed it up

in writing in NSDD 13. NSD 12 was an earlier document that stated the importance of hardening the nation's C³I assets through all stages of the nuclear exchange and requested \$ 25 billion over six years. Before 1982, the C³I complex had to survive the USSR's expected first strike and live long enough to manage the launch of the US's counter strike- in one surge. In keeping with the change in the war fighting doctrine, the C³I assets were now required to last the course. NSDD 13, was supposed to, in the administration's eyes, end in a 'victory'. The change in US strategy may have been motivated by the following factors.

- (a) The development of more accurate Soviet ICBMs, and their ability to destroy hardened silos was taken to mean that the smaller number of American ICBMs could be destroyed on the ground by the much larger number of Soviet ICBMs. Since the *Trident D 5s* capable of counterforce were not yet available, this meant that the majority of the US counter force arsenal was gone, leaving the President with little choice but to do nothing or launch a massive countervalue strike.
- (b) The weaknesses of the *Minuteman* could be eliminated by retiring it and introducing a technically upgraded missile, called MX, which the congress refused to fund. To salvage the MX the Scowcroft commission was formed to give evidence before congress about US vulnerability.

The Soviet Strategy : There is a criticism of all western strategic writing on their alleged emphasis on pure logic and operations analysis. This, the Soviets say arises from the mistaken western belief that wars are merely armed clashes between armies, whereas the Soviets view it more politically. This is not surprising, considering the overwhelming need for any writer permitted to write openly, to ascribe his inspiration to Lenin. Much of Soviet literature is therefore vehemently critical of western strategic theories, without actually saying what their theory is. The Soviets have never accepted any mutuality in the nuclear scenario, but stressed that their own strategy (which has never been given a name) must take into account not only US capabilities but that of

China and western Europe. They also refer to any idea of 'intra-war bargaining' as being nonsense, as in the theory of an escalation in slow motion, or counterforce. They describe the American strategy as essentially one of 'escalation dominance' and in that statement they have struck the truth. The best explanation of a Soviet strategy can perhaps be interpreted from translating the words *Ustrashanie*= intimidating and *Sderzhivanie* = constraining. The former they use for the US and the latter for themselves, from which has developed the theory of 'Deterrence by Punishment' for the former and 'Deterrence by Denial' for the latter. There is no Soviet writing that hints at or writes about winning nuclear wars, but all literature points to only deterring war from occurring at all.

The INF Controversy : To understand the origins and resolution of this conflict is important to any study undertaken in India, because the US-Soviet nuclear stand-off was intercontinental and not totally relevant to Indian conditions. The European situation where the induction of Ground Launched Cruise Missiles (GLCMs) and *Pershings* is expected to precipitate a dangerous crisis, is completely analogous to the India-Pakistan or the India-China scenarios. The situation in Europe prior to the induction of *Pershing* and GLCMs were as follows:

Table B : Nuclear Warheads in Europe

Aircraft launched bombs	- 1069
Artillery shells (203mm & 105mm)	- 2000
<i>Pershing I</i>	- 270
<i>Lance and Honest John</i>	- 910
Air defence and Atomic Demolition changes	- 1750
Total	<hr/> 5999 <hr/>

Source : HM Catudal, *Nuclear Deterrence*.

In 1983, the US began to induct 108 *Pershing* 11 and 464 GLCMS into Europe, with ranges of 1,100 miles and 1,800 miles. The *Pershing* has an accuracy of 65-130 feet while the GLCM is pinpoint accurate. The decision to do so was apparently because

the Soviets in the late 70s inducted the 3-MIRVed SS-20s to replace the ageing and obsolete SS-4 and SS-5s which numbered 700. If the SS-20s were inducted without any NATO upgrading, the Soviets would have been superior in Europe. The US induction made NATO vastly superior. In either case the European nations felt threatened, and the 1984 elections in Germany indicated that the public mood was against the upgrading of these intermediate range missiles. An agreement was reached between Nitze of the US and Kvitinsky of the USSR in Switzerland, but Weinberger influenced Reagan to go back on the agreement. The importance of understanding the panic over INF in Europe was the 10 minute flight time of the *Pershing II* to Moscow. The C³I system of the Soviets was relatively primitive, and so were radar discrimination techniques. The accuracy of the GLCM also made it an ideal first strike weapon, particularly against C³I assets. To counter these threats the Soviets stated they would have to launch on warning or launch on flight. Both NATO and the USSR were of one voice that INFs seriously undercut crisis stability. This stability is arrived at when both sides feel sure that their weapons are secure and not under a threat which they cannot exactly evaluate. They are then faced with a 'use them or lose them' situation. This lesson needs to be driven home in any analysis of the India-Pakistan situation.

The Irresistible Pull of Technology

Todate, there has not been an occasion when a refinement, improvement, upgrading, fine-tuning or enlargement has been offered to the political or military establishment, and it has been turned down, on the grounds of sufficiency or adequacy, in the USA, the USSR, UK, France or China. Japan, Germany and other countries technically advanced. Those who have not crossed the nuclear rubicon can be said to have withstood the one big temptation so far. Once nuclear weapons are inducted, past experience shows that such self-restraint may be an impossibility. Where a super-human will to restraint may occur, in some cases a reevaluation will quickly occur when the neighbour or rival upgrades his own arsenal. The graph in Fig. 1 shows the growth of warheads, indicating the year in which substantial improvements

in missile or warhead technology took place. There are some unarguable deduction that can be made from this table.

- (a) The US has had an average lead of 3-14 years in achieving missile accuracies of comparable figures.
- (b) The drive to greater accuracy has been driven by the desire to execute a counterforce strategy on a more-or-less permanent basis.
- (c) The comparatively higher technological levels that has made a missile – accurate counterforce doctrine achievable has confirmed to the US that they always were on the 'winning' route.
- (d) Escalation dominance has been a US motive.
- (e) The arms race has been fuelled by Soviet attempts to attain parity, while the US attempted to pull away to re-attain escalation dominance.
- (f) The motivation for escalation dominance is rooted in the 'just war' syndrome when Washington believed that its own motives were unquestionable and that of the USSR was evil, i.e., to achieve world dominance. The greater nuclear power of the US is, therefore, not believed to be dangerous because it was owned by a democratic nation with a moral and ethical attitude to international relations.
- (g) There is an unbreakable mutuality about rival perceptions in nuclear weapons.

The Lessons for Nuclear Strategy: The face off in the Cold War produced nuclear strategies that were strongly inter-related. Washington's theories on nuclear strategy were posited specifically against what they believed were the particularly 'evil' characteristics of the Soviet communist regime. Whether the rules of the game that were produced in half a century in the USA constitute some permanent rules on nuclear strategy is difficult to say. Would the USA have produced the same theories they did in defining a strategy, against the USSR, as against another power seems

unlikely. They were Soviet Union specific. In reverse, the USSR, although it produced much writing to show that they believed in no mutuality in strategy, or damage limitations, their actions certainly show a strong and immediate reactive strategy. There is also no doubt that SALT I occurred from the stability of McNamara's doctrines, and conclusively proves that the USSR produced no worthwhile alternative strategy, credible or otherwise. The long years that have been studied would seem to indicate that any country contemplating an arsenal and a strategy will be locked in with an enemy, or rival or latent competitor. There is no such animal called an independent nuclear strategy, unless of course, there is no immediate tension, detargeting agreements have been worked out, and the technology base is being maintained at a deliberately low level to enable a shifting of gears, if things get worse. The strategy of Minimum Deterrence was worked on just such a hypothesis, but up to the time of collapse, Soviet literature stated that there can be no such thing as a mutuality between rival nuclear powers. All the same time, SALT I and II were based entirely on mutuality. The lesson is clear. If there is to be nuclear weaponising and the arms race is not to spiral, the level at which mutuality must occur should be arrived at as early as possible.

NOTES

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THE RACE IN STRATEGIC WARHEADS

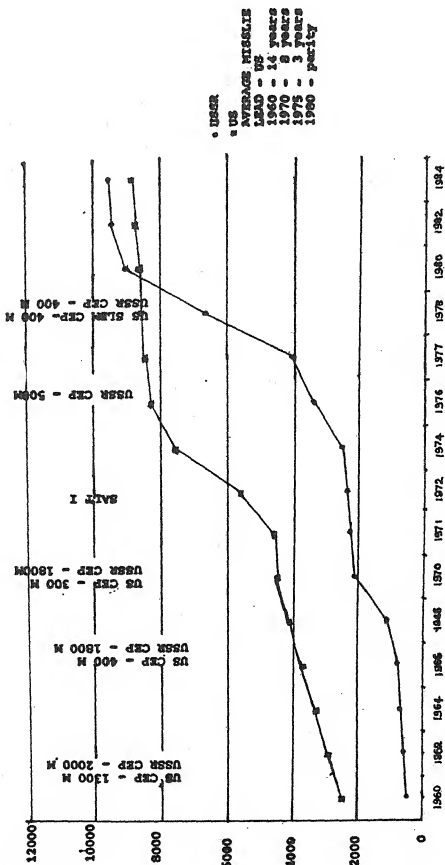


FIG. 1

Evolving a Nuclear Policy

MAJ GEN DIPANKAR BANERJEE (RETD)

Backdrop

The nuclear genie is out of the bottle. Whatever one may wish, it cannot now be put back. It may be debated whether the tests were really necessary. There may be questions whether nuclear weapons actually enhance Indian security now or were necessary for the future. Issues may be raised about the timing of the tests. But, all this is in the past and need not detain us presently. It is time to look ahead, examine the options and shape our policies. Regrettably, there exists no national consensus on nuclear policy even though there was initial euphoric support for the tests. Many see the decision in hindsight as one taken by a political party to enhance its own agenda. Hence there is no longer that overwhelming national support to the decision, an aspect that is so vital for security. Consensus may evolve over time but only after a larger debate in the nation and when the issue has been depoliticised. But there can be no scope for hesitation or confusion on national strategic policies. The decisions the nation takes now are likely to affect not only the country, but humanity as well. It is imperative then that these are formed based on an objective analysis of the strategic environment and a clear understanding of national security interests.

Three elements currently constitute the national policy imperatives on nuclear issues. First a policy towards nuclear weapons. India's position on nuclear weapons has been consistent and has withstood the test of time, because it is based on our core civilisational values. We are against weapons of mass destruction and specifically against nuclear weapons. There are many reasons for this but mainly because these weapons are indiscriminate, inhuman and meaninglessly devastating. It negates life and all that is good in humanity. At a more practical level,

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nuclear weapons do not enhance Indian security, even though its possession with others in our vicinity diminishes it. Hence, both morally and practically, it is in our interest that the world be free of nuclear weapons and India's policy must be to address how to bring this about.

Second is the question of nuclear weaponisation. Having tested the weapons, the process of acquiring them and progressive weaponisation follows naturally. But the logic of nuclear deterrence does not allow the degree and level of weaponisation to be determined in a vacuum. It will also depend upon the policy of its neighbours and the doctrines and strategies that they adopt. One side cannot unilaterally declare minimum deterrence, if others decide to adopt a war fighting strategy. The very nature of these weapons do not allow any margin for error and compel one to develop a similar if not a matching capability to ensure foolproof deterrence under all circumstances. Therefore, there is need to define what constitutes weaponisation. Normally, it may be said to include: developing an adequate number of nuclear weapons, keeping these secure and well dispersed to avoid a decapitating first strike, ensuring their delivery, training the forces on their employment, and developing adequate command and control structures both at the national and military operational levels, and a communication system that is proof against all interference and which will link the entire spectrum of decision-makers and their operative handlers. Also there is need for a comprehensive deterrence and targeting doctrine. The challenge is to ensure minimum and effective weaponisation at low level of expenditure in consonance with the need for stability.

The third is evolving a state of stable deterrence. There are several possible options and approaches, but the point to remember is that this again cannot be done unilaterally. When the goal is stability and not destruction of an opponent (who in turn can do the same to you), this cannot be achieved in isolation. Unlike conventional deterrence where secrecy is vital, a degree of transparency in doctrines and capabilities is necessary in a nuclear context.

National Security in the Current Era

The concept of national security emerged with the idea of the nation state. When the State represented the king, his personal security defined the security of his people and the kingdom. This changed with the idea of the nation state that evolved in Europe after the Treaty of Westphalia in 1648. The State now came to be defined by the territory a nation possessed and the people who inhabited it. It was symbolised by the sense of common purpose and the possibilities of future collective achievements of its population. The resources of territory and how its people exploited these determined the wealth of a nation. Hence, more territory meant more wealth. Every nation attempted to maximise its wealth and power through a relentless expansion of territory and people. The wars in Europe from the Seventeenth Century were the aggressive expression of this new nationalism.

This concept held for three hundred years and more, but is being challenged today by new developments in the last few decades and particularly from the end of the Cold War. Globalisation and interdependence are eroding the supreme sovereignty of the nation-state. Wealth is generated not so much from material resources of the nation as through the efforts of its peoples; to be able to add value to a product through the power of their inventiveness and organisational ability; through trade and commerce which allow this to take place unhindered and which are not restricted by narrow national boundaries. The power and prestige of nations today then is measured not by military strength, but increasingly by per capita income, technological capabilities and scientific achievements. These do not of course mean an end to the nation-state, as we know it. It will be there for several decades more if not a century. But, as national boundaries become less restrictive, as globalisation takes deeper roots, as the MNCs knit the world together and when billions of dollars can move from one country to another in the blink of an eye, the earlier concept of security based on the nation-state will begin to lose its salience.

In its place a new concept of security is emerging, which is

attempting to put people first. From state security it is now becoming more and more people's security, where their safety, security and well being becomes the central factor that governs the decisions of the state and shapes its policies. It can be argued that this is not entirely new. In the best Indian traditions the king considered his kingdom held in trust for the people. The concept of Ram Rajya held people's prosperity above all else. This central theme of people first is then emerging once again and replacing earlier concepts of nationalism.

The Role of Nuclear Weapons

First, what did nuclear weapons actually achieve in the past? A definitive answer is not possible even today. It is claimed to have maintained peace in Europe for forty-five years between NATO and the WTO. There were many other factors that may have been equally responsible if not more so to secure peace there. The high level of military forces made it by far the most weaponised region in world history. The reality that even a conventional war would devastate the region must have been a major factor in ensuring deterrence. The high concentration of chemical industries there could convert a conventional conflict into chemical warfare.

We know that nuclear weapons have not prevented war. Nuclear weapons do not prevent low intensity conflicts that may rage within a nation supported by outside powers. It does not also prevent border conflicts that may not threaten vital national interests, howsoever defined by the protagonists themselves. Nuclear weapons do not help recapture lost territory. The weapons do not necessarily compel a nation to behave in any particular manner even if threatened by their possible use. Witness for example the ineffectiveness of the attempted US intervention in the 1971 Indo-Pak War. Or its inability to coerce Iran into releasing its embassy staff held hostage in Teheran for over a year. It does not in any way replace or even reduce the requirement of conventional forces. The nuclear weapon today is overly rated. Through a number of measures over the last few decades, its usefulness has been seriously undermined. It is this emerging reality that needs to be kept in mind.

There is one condition where nuclear weapons use may be considered possible - when the very existence of a nation with nuclear weapons is threatened. Possessing a nuclear weapon retaliation capability is considered a powerful dissuader against their actual use by a hostile country.

Even if the above are accepted as the parameters of nuclear weapon use, the problem is it may not always be accepted by all. There will sometimes be an expectation that nuclear weapons might perhaps achieve something. Will it deter possible use of chemical and biological weapons? through the threat of war fighting deter limited border conflicts? visualising a sudden strategic and/or technological advantage allow a limited surgical strike for achieving a limited objective? The treaty preventing development of ballistic missile defences was specifically designed to enhance a sense of mutual vulnerability that would remove the perception of any accidental advantage. Doubts will, however, prevail under these circumstances which again strengthens the need for a dialogue. Strategic stability has to be constructed mutually between nations and for this we need to understand in outline the capabilities and strategies of China and Pakistan.

China

China has been a nuclear weapon power since 1964. It has weaponised steadily though not at a very fast pace. Its objective was always to develop an all-round triad delivery capability. The initial motivation for nuclear weaponisation was undoubtedly USA. Its threat perception changed soon, and in the 1960's when its nuclear weapon capability was very limited, it confronted both the Soviet Union and the USA. The 1970's saw a gradual shift from USA as the main threat to the Soviet Union. The 1980's were overwhelmingly centred on its communist neighbour. These changes in threats posed a major dilemma to Beijing in developing and deploying its nuclear forces, especially its short and medium range missiles and tactical weapons. China's southern neighbours were never a priority either as a threat or for nuclear weapons deployment. But the Tibetan plateau provided a suitable terrain for secure low cost deployment against decapitating first strikes.

Cave basing there thus became an attractive option. (A summary of China's ballistic missile capability is given in Table 1. An outline of its missile bases and their probable targets is at Table 2).

Table 1 : China's Ballistic Missiles

<i>Chinese Designator</i>	<i>International Designator</i>	<i>Classification</i>	<i>Range</i>	<i>Location (Province)</i> <i>Remarks</i>	
DF-3	CSS-2	MRBM	2,800 KM	Qinghai,	Jilin
DF-4	CSS-3	ICBM	5,500 KM	Qinghai, Henan,	Yunnan, Hunan
DF-5	CSS-4	ICBM	13,000 KM	Henan	
DF-21	CSS-5	MRBM	1,800 KM	Yunnan,	Jilin
DF-15/M-9	CSS-6	SRBM	600 KM	Anhui	
DF-17/M-11	—	SRBM	300 KM		
DF-25	—	MRBM	1,700 KM	Under development Some reports indicate given up	
DF-31	—	ICBM	8,000 KM	Solid fuel Under development (2001?)	
DF-41	—	ICBM	12,000 KM	Solid fuel Under development (2005?)	
JL-1	—	SLBM	1,700 KM	With one Xia SSBN	
JL-2	—	SLBM	8,000 KM	Under development (2005?)	

Table 2 : China's Ballistic Missile Bases

<i>Base No</i>	<i>Location</i>	<i>Brigades</i>	<i>Missiles</i>	<i>Probable Target</i>
51	Shenyang, Jilin Province	3	DF-3/DF-21	Northeast Asia
52	Huangshan, Anhui Province	2-3	DF-15	Taiwan
53	Kunming, Yunnan Province	2	DF-3/DF-21	Southeast Asia, India
54	Luoyang, Henan Province	3	DF-4/DF-5	Russia, United States
55	Huaihua, Hunan Province	2	DF-4	Russia
56	Xining, Qinghai Province	3	DF-3/DF-4	Russia, India

It is unlikely that China would have actually targeted India with its ballistic missiles in the past. It is possible that this is the case now. This is not a substantive development as the difference is insignificant. It takes but minutes to retarget missiles and if they are deployed within range the capability always exists to target any country within it. China has recently signed detargeting agreements with both Russia and the USA.

Two of the Chinese missile bases are of particular interest to India. One at Xining in Qinghai province which has three brigades with DF-3 and DF-4 missiles. This is a major missile base earlier targeting the Soviet Union. But it is also only about 1000 kms from India's North east borders and 2000 kms from Delhi. Both are well within range of these missiles. The other base is in Yunnan province with upto two missile brigades. Deployed probably to target South east Asia it also includes India within its range. Depending upon the exact deployment locations, North east India is about 600 kms away. While the solid-fuelled DF-21 will only have North east India in range, Delhi will be covered by the DF-4. Of course DF-4 and DF-5 missiles, whose total number with the PLA may only be about 17, will have the whole of India in its range no matter where they are located. The DF-21 and DF-25 missiles use solid fuel and are road mobile, and could be moved if required. China's bomber delivery capability is suspect, though it has now some 72 Su-27 aircraft. It also has only one Xia class Strategic Submersible Ballistic Nuclear (SSBN) i.e. nuclear-powered ballistic missile submarine with 12 JL-1 missiles, which is not often deployed. Overall China has an assured multiple missile delivery capability against India.

China's nuclear weapon industry is underutilised. It has the capability to increase the size of its current nuclear arsenal by a factor of two or three should this be required. Beijing's nuclear doctrine till recently was what the West considered as minimum deterrence. Not always clearly articulated by the PLA, it was based on the early statements of Mao and Deng. Mao had said in 1956, We will build a few bombs. Six are enough. Deng said in 1983, You have some (nuclear missiles) and we also have some. If you want to destroy us, then you yourself will receive some retaliation. This minimum deterrence doctrine was defined by the Chinese as the ability to drop a small number of nuclear warheads on a handful of counter value targets in a second strike mode. Indications are that this is beginning to change.

Today the PLA is increasingly articulating a theory of limited deterrence. The aim according to this is to deter "conventional theatre and strategic war and suppress escalation during nuclear war". According to the PLA this will require a range of weapons and operational capabilities necessary to respond to multiple levels of attack. This in turn has led to a re-evaluation of nuclear targets. From purely counter value targets, that is metropolitan cities, a possible list of targets now is said to include a range of counter-force and political and economic targets as well. This calls for a new range of nuclear weapons of varying yields and accurate delivery means. There is every likelihood of China breaking the test moratorium if the CTBT does not come into force, as is likely, by the end of the century. In a sense India's tests provide the Chinese a desperately needed excuse to conduct further tests of new nuclear weapons.

Pakistan

Pakistan's nuclear weapons capability is shrouded in secrecy. Yet, it is not difficult to assess its outlines. Its bombs are based on enriched uranium obtained from the AQ Khan Research Laboratory at Kahuta. The quantity of enriched uranium would suggest that the number of weapons that may be derived out of it would be a dozen or so. The weapons are only of the fission variety with yields in the region of 20 kilotons. Reprocessed plutonium will be available from the 40MW (t) heavy water research reactor at Khushab.

An area where Pakistan may have an advantage over India is in its missile delivery capability. Having acquired tested systems from abroad, these may be more reliable. Currently they appear to provide both variety as well as quantity. Its *Hatf* series are based almost entirely on Chinese systems. *Hatf II* is the M-11 with a range of 300 kms with a 500 kg warhead. *Hatf III* is the M-9 with a range of 600 kms and a warhead of 1000 kgs. Earlier reports suggest that about 40 *Hatf IIs* may have been imported. A manufacturing/assembly plant for the *Hatf II* is apparently under construction. Simultaneously, Pakistan seems to be acquiring MRBMs from North Korea. The *Nodong II* is probably the *Ghauri* with a range of 1,500 kms and a 1,000 kg warhead. The *Ghaznavi* may be the *Taepo Dong* with a range of 2,000 kms. Acquisition of missiles is not difficult if one is willing to pay the price. There is insufficient evidence of operationalisation of these missiles. But if Islamabad's foreign office statements on the deployment of *Ghauri* are accepted, then it appears that Pakistan may have deployable systems now. In such circumstances, India cannot afford to take any chances.

What is more difficult to assess is how Pakistan views nuclear weapons. At one level it is seen as the ultimate deterrent to neutralise India's military superiority, providing greater confidence to Pakistan that it is secure. This would help stabilise the region. For then there should be no need to adopt other means to neutralise India's advantages. Yet, there are additional expectations in Islamabad. First, that its nuclear weapons will somehow allow an advantage in Kashmir. A belief that India cannot counter its support to insurgency in Jammu and Kashmir, and enlarge the scene of conflict as it did in 1965. Second, that nuclear weapons now provide it the last and best opportunity to internationalise the Jammu and Kashmir question and, through external mediation bring about a solution in its favour. This it will attempt to do by creating a crisis situation by projecting a high probability of use of nuclear weapons.

Otherwise, the number and variety of nuclear weapons, and the projected delivery means available to Pakistan does not allow it to adopt anything other than a limited deterrence strategy against India.

India's Policy Options

The first priority of Indian policy must be to address the current situation in the region and to develop a credible and stable deterrence. The challenge is to do this also at lowest levels of preparation and cost and ensure least danger of accidental use. Taking a position that there is no change in ground reality since 1990 or so is to totally misread the situation and adopt an ostrich-like posture. May be as the stronger conventional military power, it is easier for New Delhi to develop a position regarding Pakistan, even though it is up to Islamabad to accept to play by the rules that we set.

Two broad options emerge with respect to Pakistan. First to continue on the path of weaponisation and develop a comprehensive deterrence capability on the lines of western strategic thinking. Even though what is considered here is minimum deterrence, some analysts suggest that this should include submarine launched ballistic missiles as well. Thinking on these lines reflects a mindset that is determined to adopt a competitive arms race that can lead to enormous expense. It is fundamentally against the minimum deterrence doctrine that India is trying to formulate and what it might remotely be able to afford. Even without submarines, a fully deployed deterrence capability that includes all the elements as discussed earlier will be more expensive than what the nation can reasonably afford.

The second option is to build on a concept of non-deployed deterrence where both sides have weaponised short of deployment. This will naturally incorporate no-first use, no attack on nuclear facilities and establishments and other similar confidence building steps that will ensure security. This would somewhat address international proliferation concerns, and at the same time contribute to stability though at the higher end of conflict. What might this mean in practice? The essential pre-requisites will have to include the following :-

- (a) An accounting of all weapon cores at the first stage and to ensure that both sides find this acceptable. This may require

mutual fissile material oversight and fissile material production cut-off.

- (b) Select storage sites for weapons unknown to each other but ensure surveillance by third parties that both can trust.
- (c) Ensure that actual delivery means are not deployed.

The above at best denotes broad parameters. Devil will lie in the details. Only if there is confidence in each other, atleast at the functional level, is this likely to be possible.

It will be more difficult to bring China into the ambit of similar arrangements. Its concerns are wider. An arrangement with China has to fit in with its global concerns. The implementation of the CTBT will impact on new weapon designs and reduce considerably its ability to qualitatively improve its nuclear arsenal. It would be to India's advantage to ensure that.

Much could be achieved if China were to be persuaded to give up its limited deterrence doctrine. Then it would not need its new arsenal of solid fuel, short-range missile systems and new generation of weapons. It too could then move in the same direction as Britain and France and retain only strategic systems. In turn this would be facilitated if the USA and Russia were to give up their tactical and battlefield weapons. They have already eliminated intermediate range weapons. This may then be an interim disarmament arrangement between these three countries, which will have no adverse impact on their national security. India would do well to strongly encourage this trend. If this does not work, the option for India would be to develop a limited war fighting doctrine to keep up with China. Else, it will be accepting a state of asymmetry that does not fundamentally address India's security concerns. It promises, however, to be a horrendously expensive proposition.

Within the outlines of this strategic perception it is possible to suggest options for a policy on nuclear weapons. First, India should unilaterally and without condition sign the CTBT. Not only is it not discriminatory, now that we have carried out the tests, obtained

the data and have announced a moratorium on tests, it is particularly not discriminatory against India. Second, India should join the FMCT negotiation at the Conference on Disarmament and work actively towards a verifiable halt to all further production of fissile material under international supervision. Third, even though India cannot sign the NPT, it will adhere to all its conditions. If it accepts inspection under a new FMCT, relevant Indian nuclear establishments will then come under its purview anyway. This in turn should help the process of requisite technology transfer to India for nuclear energy production. That is a linkage that India should make.

These then are the parameters of our nuclear policy. In all this, our ultimate objective should remain clearly in focus. That is to ensure a better quality of life for all our citizens. Secure from hunger, disease and exploitation and simultaneously secure against threats and challenges from outside. High expenditure on weapons undermines this. Conflict and war will negate it altogether.

Conclusion

The nation is poised critically between some difficult options ahead. As we enter the second half-century of independence, let us attempt to set a course that will genuinely enhance Indian interests in the next millenia and allow it to take its legitimate position among the leading nations in the world in keeping with both its potential and achievements. This position will not depend on our military capability, but increasingly on the quality and ability of our people. Even though we need a secure environment to bring this about let us redesign its contours in keeping with the reality of our times.

PROXY WAR

LT GEN CK KAPUR, PVSM, AVSM (RETD)

Introduction

A Panel Discussion was organised by the USI on 'Proxy War' on 4 September 1998 with Lt Gen Chandra Shekhar, PVSM, AVSM, Vice Chief of the Army Staff and Shri KPS Gill, IPS (Retd) as the panelists. It was presided over by Shri KC Pant, former Defence Minister. Professor Saifuddin Soz, Member of Parliament was another panelist; but due to some unavoidable reasons, he could not make it. Lt Gen HK Kaul, PVSM (Retd) and Lt Gen VK Nayar, PVSM, SM (Retd) also made brief presentations focussing on some sensitive and highly emotive issues. The discussion was attended by a large number of senior serving and retired armed forces officers, journalists, members of the diplomatic corps and other members.

The Chairman's Opening Remarks

In his opening remarks, Shri KC Pant briefly outlined India's involvement with insurgency from the mid-1950s till date from Nagaland to Mizoram and Assam and then to the other parts of our country including Punjab and Jammu and Kashmir. The ripples of international terrorism have also been felt in the southern states of India. The acquisition of Jammu and Kashmir has been an obsession with Pakistan, which calls it the 'unfinished agenda of Partition'. The 'Proxy War' launched by Pakistan now appears to be led and conducted by foreign mercenary elements in large numbers having international dimensions, particularly in view of the recent developments in Afghanistan. Shri Pant emphasised the importance of having an in-depth knowledge and deep understanding of all the relevant security-related issues in the wake of overt nuclear capabilities acquired by both India and Pakistan. Combating 'Proxy War', therefore, requires a coordinated effort

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involving the Centre and State governments, political parties, the armed forces, police, the press and the people, so that each understands the nature of the problem and the measures by which it can be successfully tackled. The salient aspects of the presentations by the panelists and other distinguished speakers are covered in the succeeding paragraphs.

Salient Features of the Presentation by Lt Gen Chandra Shekhar

Proxy Wars and irregular warfare, to destabilise the target country to achieve the political aims appear to have become the 'norm' in the Third World, be it Angola, Congo or Afghanistan, and now in Jammu and Kashmir. The introduction of the 'nuclear dimension' in the Indian sub-continent and the severe constraints that the present international environment imposes on the type of responses that can be mounted has made it necessary to develop a new strategy to counter these threats. So far as Pakistani strategy for proxy war in Kashmir is concerned, Professor Yossef Bodansky, Director of the Task Force on Terrorism and Unconventional Warfare of the US Congress, has this to say:

For Pakistan, a crisis in Kashmir constitutes an excellent outlet for frustration at home, as an instrument for mobilisation of masses, to gather support of the Islamist parties, the Army and the ISI.

Its ideological content transforms it to a sacred mission to liberate Kashmir, the only task unfulfilled since partition and formation of Pakistan.

Genesis of Proxy War in Jammu and Kashmir

The fundamental causes of the Proxy War in Jammu and Kashmir are:

- (a) Internal alienation and grievances (poor governance, sense of isolation, demographic pattern and religious fundamentalism).

- (b) External support and sponsorship by Pakistan.
- (c) Distortion of historical facts.
- (d) Tolerance of 'proxy war' by the international community.

Pakistan's Strategy of Proxy War

Proxy War is a low cost and 'no cost' option best suited to promote Pakistan's geo-political, diplomatic, and military interests not only to wrest Kashmir but also to gain 'forward strategic depth'. Code named Op TOPAC, it is a well-planned and meticulously executed operation by the ISI and masterminded by the then Pakistan President General Zia-ul Haq. Its three main phases are:

Phase I

- Initiate low level insurgency
- Subversion in police force, financial institutions and communication networks.
- Organise and train subversive elements.
- Sabotage lines of communications.
- Create chaos in Jammu.
- Establish control over areas of the Valley not covered by Army deployment.

Phase II

- Direct pressure along the Line of Control.
- Infiltrate Afghan Mujahideen.
- Induct Special Forces to attack strategic targets.

Phase III

- At an appropriate stage provide a convenient nudge once 'Jehad' peaks, to liberate Kashmir and establish an independent Islamic state.
- To degrade India's conventional superiority.

- To internationalise Jammu and Kashmir issue.
- Create high voltage propaganda with special reference to 'human rights'.
- Attempt to absorb Kashmir eventually by military means.
- Paint India as an anti-Muslim, Hindu fundamentalist country and thus claim military and financial assistance from other Muslim countries.

External Support

The Proxy War in Jammu and Kashmir has been unleashed by Pakistan, which is actively abetting the insurgent movement there. It is providing training, weapons and equipment and funds either from its own resources or as a conduit from other Islamic countries such as Saudi Arabia, Sudan, Afghanistan and so on. Under the overall aegis of the ISI, a vast network of training camps, logistics bases, launch pads, command and control set up, and overground and underground armed political and propaganda wings of militant organisations have been created on both sides of the Line of Control. The vast network of this structure created in 1980 for the Afghan resistance always had the dual role for Jammu and Kashmir and elsewhere in India. From 1992, Pakistan commenced the induction of foreign militants till their numbers reached 2000 or so in 1994. The quality of weapons and communication equipment is state-of-the-art.

Current Situation in Jammu and Kashmir

There has been a qualitative escalation in militancy due to the foreign mercenaries and sophisticated weapons. Infiltration has been curbed to a large extent and the situation has been improving in the Valley. The arc of militancy has, however, been widened south of the Pir Panjal to encompass remote and inaccessible areas of Doda, Kishtwar, Poonch, Rajouri and Chamba.

Positive Developments

- (a) Violent incidents on the decline, especially in the Valley.

- (b) Local recruitment is becoming difficult for the militants, and the people are disenchanted.
- (c) Actionable intelligence regarding militants is coming forth through locals.
- (d) The Jammu and Kashmir police have become more effective than before.
- (e) Militants' channel of funding has become restricted.
- (f) Increasing faith of the populace in the elected government.
- (g) Dissension in the Huriyat continues.

Negative Developments

- (a) Mass killings of innocent people.
- (b) Militancy on the rise in Jammu region.
- (c) Taliban victories in Afghanistan.

STRATEGY TO DEAL WITH PROXY WAR

Operational Measures

- (a) Check infiltration.
- (b) Synergised operations by all forces and civil administration.
- (c) Improve intelligence.
- (d) Effective administration, economic development and firm actions against militants.
- (e) Address the cause.
- (f) Counter Pakistani propaganda and employ media as a force multiplier in opinion making, internally as well as internationally.

Diplomatic Measures

- (a) Strong political and diplomatic signals to Pakistan indicating that:
 - [i] Till date we have exercised restraint; and,
 - [ii] This cannot go on forever.
- (b) Ask Pakistan to withdraw troops from Pakistan Occupied Kashmir.
- (c) No scope for third party mediation.
- (d) Expose Pakistan as the mother nation of Islamic fundamentalist terrorism.
- (e) Common approach with countries facing similar problems.

Economic and Administrative Measures

- (a) Uplift the economy of Jammu and Kashmir through:
 - [i] Building infrastructure;
 - [ii] Small scale industries;
 - [iii] Self-employment schemes;
 - [iv] Giving employment to youth.
- (b) **Education.** Effect of madrasas to be checked.
- (c) **Health.** Improve primary health services.
- (d) Further streamline administration.

There is no ambiguity about the fact that Pakistan is actively abetting militancy in Jammu and Kashmir despite international protests. The fact that Jammu and Kashmir is an integral and inseparable part of India only doubles our resolve to checkmate Pakistani designs. The need of the hour, as far as the international community is concerned, is to intensify the pressure on Pakistan to immediately stop supporting the militancy in Jammu and Kashmir. Simultaneously, the Security Forces should pursue relentless anti-militancy operations to create a situation conducive for the restoration of peace.

Lt Gen Chandra Shekhar strongly advocated the need to pursue aggressive diplomacy to project the Indian point of view on Kashmir. The Vice-Chief of Army Staff emphasised that a mere 'militancy solution' would not suffice. He pointed to a marked improvement in the situation in the Valley. The tide was turning there, but it would take a sustained, multi-pronged effort to restore normality.

Salient Features of the Presentation by Shri KPS Gill

Based on his experiences in Assam and Punjab, former Punjab Police Chief opined that the situation in Jammu and Kashmir has not really improved, though the focus of terrorist activities appears to have shifted from the Valley to other areas. He stated that Doda is a vast area, equal in size almost to the Valley and a population of seven to eight lakhs spread over almost 500 villages. He stressed that our operational plans, tactics and techniques should be evolved based on local conditions and the expertise of the field commanders operating in those areas. Remotely controlled operational planning from Delhi or Srinagar will be counterproductive and futile. He ridiculed some of the proposals, such as using helicopters in Doda because they might inspire confidence in the people. There was little room for political inputs "in operational planning". He stated that such operations are not likely to be successful as has been experimented by the Americans in Vietnam and the Russians in Afghanistan. Shri Gill regretted that there had never been a sustained policy on tackling militancy. Jammu and Kashmir has become more of a talking point with various ministries and departments including the Prime Minister's Office (PMO) without any single agency being responsible for evolving a coordinated policy. The 'stop and go' policies had never worked. Shri Gill emphatically stated that the number of mercenaries in Jammu and Kashmir is increasing. While their strength in 1991 was believed to be 300 or so, their present strength is assessed to be around 1,000 to 1,500, a phenomenal increase of 300 to 500 per cent. It was important that the 'threshold' level is clearly determined and contingency planning done. How will we respond in case 5,000 or say two brigades worth of hardened militants get inducted into Jammu and Kashmir? Would India still accept that as a low intensity

conflict or deem it an open aggression? Shri Gill stated that an objective appraisal of the proxy war was essential and adequate innovative responses developed. The aim must be to turn the situation around in six months or a year; there was no point in looking to a lengthier time frame.

Salient Features of the Presentation by Lt Gen HK Kaul, PVSM (Retd)

In his brief presentation, Lt Gen Kaul stated that since 1988 the State has witnessed ethnic cleansing, en masse destruction of places of worship such as temples and Gurudwaras, hounding out the minority from the state – nearly 300,000 of them are rotting all over India in sub-human conditions. Successive governments have done nothing except make pious statements. The nation cannot take any more of them, neither should they. One of the reasons given for this situation is the apathy of the international community. Surely, any thinking Indian would know that our point of view, even if it is correct, will not be supported by any other nation because, in their perception, it does not help their long-term aims in South Asia, Central Asia, or in South East Asia. We have the strength and the resources to tackle this problem. All we need is the 'will'. We cannot give the apathy of the international community as a reason for the persistence of the problem nor the apathy of the UN, which is controlled by a powerful few. We did the initial mistake of going to the UN. What is preventing us today from solving the problem is ourselves. The Government should form a specific policy instead of reacting each time in a 'stop and go' manner.

The Army should be given a clear mandate because it is only they who can solve this problem with their capability and resources. One example of such a task is – to root out terrorism in the state of Jammu and Kashmir. It is not militancy or insurgency but sheer terrorism exported from Pakistan. Along with this, it is necessary to capture the minds and hearts of the people of the State in order to benefit from their co-operation. An 'information war', and not a 'propaganda war', must be launched. Only 100 per cent truth must be told to all Indians and the rest of the world, over and over again. Further, the Army must be given the full rein and the

resources for a national task like this. It would be economical to finish this task quickly. Civil administration may have to be administered temporarily by the Army till the situation changes. Had people tried to finish this problem, it would not have continued for so long.

Salient Features of the Presentation by Lt Gen VK Nayar

In his brief presentation, Lt Gen Nayar stated that in Jammu and Kashmir we are not taking cognizance of two basic facts that are part of the ground reality. Firstly, at the political level, there is a subtle demographic change taking place even in areas outside the Valley. Second, inspite of the well-known fact that Kashmiriyat is based on the Kashmiri version of the Sufi religious sentiment, what is being imposed is a propagated Islamic fundamentalism. Neither the State Government nor the Central Government have made efforts to fight these at the political, social and cultural levels.

While stating the dimensions of proxy war, Lt Gen Nayar emphasised the importance of proper political management by the Government. The lack of political will and direction and the resulting confusing statements create a state of uncertainty in the minds of the people. He also stressed on the importance of bringing up the police force as a vital part for tackling this problem. Lt Gen Nayar stated that the minds of the younger generation, the cutting edge for implementing the Government's policy, need to be carefully studied. Without their total involvement, we cannot achieve optimum results.

General Discussion

In the discussion that followed, a number of relevant issues were raised by the members. It clearly emerged that after failing to take Jammu and Kashmir despite its three attacks, Pakistan began a new conspiracy against India, finding a low-cost option of 'bleeding' its neighbour - as the ISI described it - 'by a thousand cuts' by proxy war. This has also served as a 'diversion' to help the Pakistani regimes, to divert attention of the people away from their country's political and economic problems. A crisis in Kashmir

also constitutes an excellent outlet for the frustration at home as well as for gaining the support of fundamentalist Islamic parties and groups within and outside Pakistan. Gen Zia-ul Haq conceived Operation TOPAC in 1977. By 1987, when the Soviets withdrew from Afghanistan, the ISI had got tremendous experience in unconventional warfare and sabotage while working along with the US Central Intelligence Agency (CIA) against the Russians. USA supplied US \$8 billion worth of arms and ammunition for the war in Afghanistan through various camps (believed to be 90) in Pakistan and Afghanistan controlled by the ISI. Many of these highly lethal and sophisticated weapons were diverted towards Jammu and Kashmir. As the Taliban consolidated its position in Afghanistan, there would be even more mercenaries who could be diverted not only to Jammu and Kashmir but even to the other parts of India. Pakistan is, therefore, not likely to loosen its grip. This implies greater vigil and better response from India.

There is an imperative need to pursue aggressive diplomacy to project the Indian point of view on Kashmir. India's foreign policy should be reviewed following the Pokhran blasts and fresh threats emerging out of the Taliban's increased influence. We should sink our political differences and forge a national consensus on the issue. However, it is essential that every effort must be concentrated on dealing with the situation on the ground squarely. When the ground situation improves international opinion would swing in India's favour.

Some of the inadequacies highlighted during the discussion were-the alienation of sections of the people in Jammu and Kashmir through incompetent governance, corruption, lack of political and administrative will to do what was needed to 'sort out' the mess, and ineffective coordination among the various agencies operating in the State. Even after ten years experience of combating insurgency in the State, Unified Command apparatus is yet to mature. The only way to deter foreign militants is by making the price too high for them. All possible measures, including induction of more troops, if required, need to be aggressively followed towards that end. The handling of this sensitive issue by our media also needs to be improved.

While most of the participants counselled patience and saw signs of improvement in Kashmir, a number of retired defence officers advocated stronger measures. India has suffered a large number of casualties in the proxy war being waged by Pakistan in Jammu and Kashmir. There is a need to adopt offensive measures against Pakistan.

Chairman's Closing Remarks

In his closing remarks, Shri Pant complimented the troops for doing an excellent job in Jammu and Kashmir despite numerous difficulties. He said that in this proxy war, the stakes for India are heavy, particularly because of its secularism and other ideological factors. India has more than 130 million Muslims, which is more than the population of Pakistan. However, parliamentary elections were peacefully held in Jammu and Kashmir in 1996 and 1998. The election for the state assembly in September-October 1996 were also peaceful. The percentage of votes cast in Jammu and Kashmir was in keeping with the rest of the country. All this happened despite heavy threats from the militants. Because of their firm belief in Sufism and their homogeneity with the Indian ethos and culture, the people of Jammu and Kashmir will not accept fundamentalist brand of Islam. Local support is thus drying up for foreign mercenaries.

While agreeing that India must do what it deemed necessary, he pointed out that international opinion could not be totally ignored. Shri Pant said that Pakistan's involvement in international terrorism is not only directed towards India, but also many other countries in the world. With the recent American attack on terrorist camps, Pakistan's 'cover' had been blown. Shri Pant felt that the US missile attack on Afghanistan would serve as an international wake-up call.

Jammu and Kashmir is a vital part of India. We must gear ourselves to respond suitably to the developing situation. While wars have not solved any problems in the world, it would be a folly to ignore the age-old adage that if you want peace, then be prepared for war.

Low Intensity Conflict : Jammu and Kashmir

LT GEN V K NAYAR, PVSM, SM (RETD)

General

It will be relevant to examine and analyse the historical perspective of the Kashmiri experience and the contemporary trends in Jammu and Kashmir, which have conditioned the perception of the Kashmiri people in particular and people of the entire state of Jammu and Kashmir (J&K) in general. It is only by understanding these that we can get a clear picture of the post 1989 period of militancy. Militancy is an effect of these events and not the cause of the present turmoil.

Historical Perspective

Kashmir's ancient history upto the Sultanate period is marked by isolation, independence and solidarity, which resulted in a composite culture and identity. This culture and identity was based on a fusion of Hindu Shaivism and Buddhism and reinforced by the humanism of Islam as expounded by Lalla Ded and Sheikh Noor-ud-Din and is the basis of the ideology of 'Kashmiriyat'.

The period of three and a half centuries of Kashmiri history from the Moghul period upto 1930 was a total contrast to its earlier history. It was the period of subjugation and repression and a blow to their self-respect by one or the other invader. The composite culture and identity came under stress and the worst of it was during Aurangzeb's period due to his discriminatory and partisan attitude towards Hindus, which fragmented the Kashmiri society socially and culturally. Afghan, Sikh and Dogra periods are equally marked by tyranny, plunder and repression. In spite of these, Kashmiris survived due to their basic social and cultural strength and it also motivated the revival of its urge for reassertion.

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Reassertion

The period from 1930 till 1953 can be termed a period of reassertion. It is marked by a rejuvenation of its secular and composite identity underlined by the sentiment of Kashmiriyat, economic and democratic revival. It also raised the issues of autonomy and independence based on its historic experience and fears and laid the foundation of suspicion and belligerence in the years to come. Sheikh Mohammad Abdullah and National Conference's desire to play a dominating political role in the future of J & K resulted in distortion of the democratic system and set in motion reactionary trends of future regional imbalance and tensions.

Both the partition of India on independence and the events related to the accession of J&K state has left a legacy of conflict of which Kashmir has become the centrepiece.

In spite of the fact that subsequent events in the subcontinent have proved that the two-nation theory based on religion is flawed, Pakistan's emotional attachment to propagate that the Kashmir dispute represents the justification for its existence continues. Besides the emotional attachment, in Pakistan's perception Kashmir's importance also lies in the fact that it provides strategic depth, its rivers are its source of energy and irrigational system and most of all the dispute over Kashmir represents the extension of the two-nation theory so vital for its unity.

Turmoils and Prelude to Militancy

1953 to 1989 can rightly be called the period of inner turmoils and convulsions, marked by political ineptness, expediency, rigged elections, corruption and alienation – a fertile ground for Pakistan's subversive designs.

The differences in perception of events pre and post-1975 Indira-Sheikh Accord is often cited as the reason for discord between the Kashmiri and the Central leadership. The root cause for this was the struggle by Sheikh Abdullah to re-establish his old

dominant position as the undisputed leader with total disregard to events of the previous 22 years and failure of the Central leadership to accept that without establishing a political base in the state they could neither replace him nor influence events. Mutual sniping between the Sheikh and the centre continued. Income Tax raids on the Kashmiri elite in 1980 followed by political attacks on the Sheikh led to the latter's retort in the shape of 'J & K Grant of Permit for Resettlement Act' of 1982. The Sheikh termed opposition to it in Jammu as Hindu communalism.

In the field of governance, his failure to tone up the administration, uproot corruption and nepotism resulted in the emergence of a new dynastic politico-administrative elite in Kashmir. After his father's death in 1982, Farooq Abdullah, inspite of his consistent upholding of the accession to India, was in conflict with the Congress-I and termed the 1983 elections as a plebiscite between Congress and the National Conference. Maulvi Farook, who had joined Farooq Abdullah, raised the issue of plebiscite. Congress exploited the Hindu sentiment in Jammu to further widen the divide.

The story of turmoil following the dismissal of Farooq Abdullah's Government leading up to the 1987 election is well known. Of special significance is the coming together of the Muslim United Front - a conglomeration of the opposition parties against the National Conference-Congress alliance. Rigging of elections and the denial of legitimate constitutional outlet led to violence and militancy, ground work for which had been provided by the Madarsa system of the *Jamait-i-Islami*.

Inept political approach over a prolonged period to gain short-term goals resulted in unhealthy trends and isolation of the Kashmiri masses. A communal tinge was added by National Conference and other Kashmiri leaders who fanned the Kashmiri sentiment with a Muslim distinction and the central leadership exploiting the anti-Kashmiri sentiment in Jammu and Ladakh. The natural outcome was Muslim fundamentalism to meet the ends of political expediency.

Genesis of Militancy

Discussion of the historic perspective and events of contemporary period have brought into sharp focus the different facets of current turmoil and militancy in Kashmir.

The root cause of this situation was political ineptness, due to which Kashmiris felt isolated both from the national mainstream and within the state itself. This isolation over a period of time turned into alienation and provided fertile ground for Muslim fundamentalism to take roots. Islamic resurgence in Afghanistan and Islamisation of Pakistan under Zia-ul-Haq provided both the opportunity and resources to Pakistan to further its subversive designs in Kashmir.

It is, therefore, valid to state that the genesis of the current militancy is founded on the contemporary experiences of Kashmiris, which has a political, socio-economic and religious content, with both internal and external dimensions.

Pakistan's Sponsorship of Militancy

Pakistan has never failed to exploit anti-India sentiments with Kashmir as the centrepiece. Most Indians think that the Shimla Agreement was a watershed in Indo-Pak relations. But the fact is it never prevented Pakistan from defying its spirit as is evident from the armed conflict in Siachen Glacier Region and her aiding and abetting militancy in Punjab, Kashmir and in the North-East and to exploit internal turmoils within India. We will do well to realise that Pakistan never had bilateralism in mind and the spirit generated by the Shimla Agreement was a temporary constraint on a defeated Pakistan.

However, it was Zia-ul-Haq who took the categorical stance that Kashmir is the centrepiece of Pakistan's policy and the issue can only be resolved based on UN Resolutions of 1948 and 1949. Pakistan never missed an opportunity to raise the issue in international forums. With Islamisation of Pakistan, the Soviet invasion of Afghanistan provided the opportunity. In keeping with his concept of Pan-Islamism, he improved relations with Saudi

Arabia, Jordan, Indonesia and Iran and established firm links with the Afghan Mujahideen. Zia exploited the convergence of the geo-strategic interests of Washington and Islamabad to fulfill the dream of Pan-Islamic revival with Pakistan spearheading the movement. An Islamic Mujahideen regime in Afghanistan and annexation of Kashmir were an essential part of this scenario.

Separation of Kashmir from India would complete the unfinished business of partition. Based on past experience Zia realised that an open conflict with India is unlikely to succeed and would compromise Pakistan internationally. The key lay in contriving the liberation of Kashmir from within, with military option only as a *coup de grace*. He knew that Kashmiris did not have the potential to achieve it on their own. He, however, felt that they had qualities that could be exploited. These were Kashmiri qualities of shrewdness and intelligence, perseverance and a mastery of political intrigue. Zia's strategy centred on exploitation of these and depicting the Kashmiri struggle as indigenous and aimed at their right to self determination. The end result was the proxy war as envisaged in *Op Topac* launched in August 1988 just prior to Zia's death. It is being followed by subsequent Governments of Pakistan with the ISI exercising firm control over it.

Corruption

Corruption has its roots in the disruption of the political process consequent to the Sheikh's dismissal in 1953 and the perceived threat from the newly formed Plebiscite Front. Corruption as a model was applied to J&K. The approach was distribution of spoils and patronage to appease people, and particularly the elite, in the shape of liberal central Government aid, building up of a subsidised economy, discretionary sanctions of permits, contract and licenses and permits for quotas. Per capita grant in aid to Kashmir was almost seven times that of other states. Corruption in all walks of life became the order of the day and the political-bureaucratic-business nexus to perpetuate it became well-established.

On returning to power in 1975, Sheikh Abdullah proclaimed that he will give the highest priority to eradication of corruption. But the reality was that it only increased and the Sheikh family's

assets were valued at over Rs 20 crores. Income Tax raids against corrupt businessmen were thwarted and were physically prevented. The jurisdiction of the Central Vigilance Commission was not extended to J & K and similarly the Presidential order of 1954, which brought all matters in the Union List under the purview of the Parliament, excluded the powers of the CBI to investigate corruption in J & K.

The cumulative effect of all this corruption was the emergence of a neo-rich urban elite consisting of politicians, bureaucrats and businessmen, lack of development and unemployment resulting in social tensions, disillusionment and finally alienation.

Islamic Resurgence and Fundamentalism

Most Kashmiri intellectuals acknowledge that Islamic resurgence is essentially a reaction to corrupt and inefficient regimes and failures in the practice of democracy to alleviate their grievances. Islam was propagated as an alternative source of inspiration and motivation. Impetus to it was provided by the Islamic revolution in Iran, consolidation of Zia's regime with overt and covert means to subvert Kashmiri minds and the emergence of Islamic militants in Afghanistan providing teeth to it, with *Jamait-i-Islami* as the vehicle to propagate it. The collapse of the USSR provided the natural vacuum for Islam to fill in.

Jamait-i-Islami of Kashmir's close links with *Jamait-i-Islami* of Pakistan provided it with the orientation to Pakistan's political objectives rather than Islamic ideology. It exploited the feeling of alienation and isolation of young Kashmiris who had no other outlet available. *Jamait's* impact has been felt both at the social and educational level. Socially, it came out openly against family planning schemes by terming it as a design of the Government of India against Muslims. In the educational field it established over 200 madarsas and fundamentalist ideologies were preached. Growth of Muslim fundamentalism in Kashmir has been more by default and to meet the ends of political expediency by political leaders of the state, with inaction or connivance of central political leaders. A situation which suited Zia's strategy for fomenting trouble in India to undermine its secular ethos.

Alienation

Both the anti-Indian sentiments and alienation of Kashmiri masses are two cumulative facets of the Kashmiri contemporary experience, which provided the ground work for Pakistan's subversive designs resulting in revolt and insurgency.

Alienation has its roots in the politics of expediency played both by the Kashmiri and central leaders. Central leaders dealt with Kashmir through local leaders, some of whom were not genuine or sincere to Kashmir and the Indian nation.

Loyalties were modulated to requirements of political leaders in power both at the centre and state. To maintain their political base intact the Sheikh and other Kashmiri leaders kept Kashmir isolated from the national mainstream and from other regions within the state. Their political stance varied between the desire for independence and coming to terms with the ruling party at the centre to regain power. In this inept political power game the Kashmiri masses became pawns and remained isolated and deprived, resulting in a sense of alienation. Sentiment of autonomy and independence is a hostage to this power game.

The other facet of alienation is corruption. Both power (participation) and resources meant for development were cornered by the neo-rich elite and the common man remained deprived unable to participate in either the democratic or the development process. While J & K may have shown an improvement in economic terms and compares very favourably in allocation of central funds, the common man remained deprived of minimum requirements and no employment avenues were created for the younger generation.

Political ineptness, corruption and failure of democratic institutions to meet the people's genuine aspirations resulted in frustration. At the political level this frustration was mixed with protectionism which, apart from isolation, distorted their identity and made them fall prey to fundamentalism.

Militancy

The period of militancy can be broadly divided into three parts :

- (a) Gestation or the preparatory period and the beginning - upto mid-1990.
- (b) Insurgency to proxy war - Mid 1990 to beginning 1993.
- (c) Proxy war - 1993 to date.

Gestation Period

It will be prudent to accept that this phase commenced after the rigged elections of 1987, when a large number of Kashmiri youth crossed over the Line of Control (LC) for training in Pakistan and induction of arms and ammunition in the Valley started. Various estimates put the figures between 15,000 and 20,000 during 1988 and 1989. This has to be viewed in the backdrop of events in Afghanistan and the ISI's reported diversion of almost 60 per cent of the arms and ammunition delivered by the West for Afghanistan, and Pakistan's experience in Punjab. This was aided and abetted by *Jamait-i-Islami* cadres by injecting fundamentalism in the body politic and society.

The period was marked by mass agitations, demonstrations, bomb blasts and selected targeting of Kashmiri pandits to give it communal overtones. This was followed by the terrorising of the general public through arson, destruction of government property like schools, bridges, administrative buildings and intimidating government functionaries to undermine Government authority and establish the writ of the militants. This phase was marked by three events which encouraged and gave credence to militancy. One was the kidnapping of Rubiyya Sayeed, the then Home Minister's daughter (March 1990). The second was the killing of Mirwaiz Maulana Mohammed Farook, Chairman of Awami Action Committee (24 March 1990) by the terrorists and firing on the funeral procession by panicky CRPF personnel in which 57 civilians were killed. Third, the high point of political ineptness, when Farooq

Abdullah was provoked to resign on the appointment of Jag Mohan as Governor. This was also marked with mass Kashmiri Pandit migration to outside the Valley thus bringing the Central Government in direct confrontation with the situation. All these events put together can be termed as political and strategic failures of the highest order.

Till March 1990, the Army was manning the Line of Control (LC) as hitherto against armed military intrusions and overt Pakistani action. It did not interfere with civilian movement. In the period before March 1990 major infiltration and exfiltration had taken place to and from Kashmir. This was both a political and military failure of high magnitude. In particular terms it was the failure of all the intelligence agencies, central, local and military. This put us to a disadvantage and was the beginning of a reactive syndrome and gave Pakistan the initiative.

Insurgency to Proxy War (Mid 1990 to Beginning 1993)

The process of ethnic cleansing, arson, destruction of property and process of undermining the Government's authority continued during the summer of 1990. The period was marked by escalation in militant strikes against selected targets, militant operations enlarged to cover dispersed areas of the Valley and operational aspects of military gained ascendancy.

Insurgency had started in the summer of 1990. Realisation on the Government dawned and military responses to deal with the situation were set in motion. Valley and the 20 Km belt of Rajouri and Poonch areas were declared disturbed on 5 July 1990.

The years 1991-92 saw escalation in militant activities and intensification of counter-insurgency operations by the security forces. Army tightened the anti-infiltration and exfiltration measures along the LC and areas immediately in depth. These efforts met with notable success in Kupwara and Uri sectors, which drew violent responses from Pakistan in the shape of limited attacks on some army posts, artillery duels and heightened activities along LC in Kashmir, Poonch and Rajouri. The Indian response was

professional, controlled and aggressive resulting in heavy casualties to Pakistan and few casualties on our side as well. This changed the configuration of the LC and more troops were inducted and CI operations were intensified, resulting in the killing of militants in increasing numbers and capture of a large quantity of arms and militants. Interrogation of captured militants and events along the LC gradually revealed the design of proxy war by the end of 1992.

During this period while military responses to meet the situation were built up, the civil administration took further beating due to the strike by Government employees. The Government's functioning was disrupted and public distribution system and civic services and Government infrastructure broke down, resulting in greater hardship to the people and further alienation.

Allegations of mass rape at Kunan, Poshpora in Kupwara in February 1991 and other incidents were exploited by militants to put pressure on the Government. Murli Manohar Joshi's Ekta Yatra and Amanullah Khan's efforts to organise a people's march, which was prevented by the Pakistan Government were other events of significance.

During the summer of 1991, I visited the Valley for a study tour and recorded my impressions with the Government as well as under the heading "Action Plan" in my book *Threat from Within*. It included an assessment of the prevailing situation in the Jhelum Valley, border areas and the Puthwari areas, followed by suggested orientation of operations and tasks for the Army and Paramilitary forces. I made a categorical recommendation for sanctifying the Doda District and to consolidate Poonch and Rajouri areas. I also emphasised the need for policy direction and establishment of a cohesive command and control system. Unfortunately, these were implemented two years later when the situation had escalated into a full fledged proxy war.

Proxy War 1993 - To Date

The situation turned around during the summer of 1993 with the appointment of General Krishna Rao as Governor. He outlined

a somewhat more cohesive policy in the field of militancy - revamping the administration, revival of political activity and dealing with alienation of the people.

The anti-militancy drive centred around the formulation of a unified concept at the state and field levels to plan, coordinate and execute CI operations, establishment of a CI Grid, better management of LC, improvement of intelligence and rebuilding the police force.

The year 1993 and the beginning of 1994 saw huge losses to the militants, increase in criminal activities and people gradually turning away from the militants. The period also marked a high rate of drop outs of Kashmiri militants both due to heavy casualties and maltreatment by Pakistan authorities. Decline in the effectiveness of Kashmiri militants forced ISI to induct greater numbers of mercenaries resulting in greater disillusionment of the Kashmiris. 1995 and the period after this is marked by a pronounced change in the configuration and orientation of insurgency. From a Pro-Azadi and Pro-Pakistan militancy it is mainly thriving as a Pro-Pak proxy war.

The militancy picture is not complete without taking into account the events of Hazratbal in October 1993 and the Charar-e-Sharif incident of March 1995. While the first was a success, the second can be termed as a failure. It was followed by the kidnapping of the six western hostages by *Al Faran*.

The years 1996 and 1997 were marked by pro-active initiatives in the political field by holding elections to the J&K Assembly and installation of an elected Government in November 1996. Holding of Lok Sabha elections in February/March 1998 has proved that the constitutional and political process is well established in J & K. It also confirmed the legitimacy of the earlier assembly elections.

Along with the above political process, the current situation is marked by two major trends. One, that the proxy war has passed into the hands of the foreign mercenaries operating under the direct control of ISI. Secondly, that it has spread and taken

root in areas of Poonch, Rajouri and Pir Panjal Range. Recent attacks on isolated Hindu villages in the upper reaches of the Pir Panjal in Udhampur district and adjoining areas are a part of ISI design to perpetuate ethnic cleansing in dispersed areas to give it a further communal colour and create Muslim dominant areas in conjunction with local fundamentalist forces.

With the installation of a new government in New Delhi and the change of Governor of Jammu and Kashmir in April 1998, there has been a dilution of CI strategy formulated earlier. The need is to reinforce it in view of the emerging proxy war threat. Nuclear explosions both by India and Pakistan and weaponisation of this capability by both will take time to stabilise and will not make any changes to Pakistani designs of proxy war. If any, there is likely to be escalation of it both in its dimensions and intensity.

EMERGING DIMENSIONS OF PROXY WAR

General

Before dealing with the emerging dimensions of the proxy war, it is necessary to briefly mention the influencing factors.

First and foremost is the obvious fact that Kashmir militancy is Pakistan sponsored and for which her moral, material and physical support is likely to increase. Pakistan has succeeded in internationalising the Kashmir issue and made it the centrepiece of Indo-Pak relations and negotiations. It is also an inner compulsion for her to unite her people.

Nuclearisation both by India and Pakistan makes proxy war the most viable option for Pakistan. The proxy war will essentially be controlled and guided by Pakistan Army and ISI, with its political leadership and diplomatic effort providing it legitimacy internally and in the international arena.

Pakistan's strategy will continue to centre around its well-modulated stance that Kashmir is a disputed territory and the struggle there is motivated by people's desire for self determination.

Pakistan will continue to exploit the Kashmiri's sense of alienation and exploit events by giving it a communal and repressive colour.

Increasing numbers of Afghan and Pakistani volunteers and other Mujahideen will be inducted due to operational necessity and to divert the large number of mercenary Mujahideen and weapons available to Pakistan. This will give greater teeth to militancy and control to ISI.

For Pakistani designs to succeed, it is essential that Islamisation of the proxy war is sustained externally to motivate Mujahideen and its supporters in the Muslim world to garner greater support and resources; and internally, in Jammu and Kashmir, it will aim to expand insurgency to Muslim-dominated areas beyond the Valley in Rajouri, Poonch, Udhampur, Kishtwar and Bhadarwah areas. In this regard vulnerability of Gujjars and Bakarwals by inducements and exploitation of Muslim sentiment needs attention. Demographic spread of Muslims in Jammu and Udhampur and along the national highway in the last decade provides a viable ground work.

The other facet of the emerging proxy war is subversion aimed at extending the Indian State, its administration and security forces. Pakistan, through its primary agency ISI, is enlarging the supportive covert subversive efforts both area wise and activity wise through Muslim fundamental organisations in the country. For this subversive network resources in terms of explosives, arms ammunition and expertise have already been induced. Bombay blasts of 1993 and recent blasts in Coimbatore in March 1998 and resurgence of terrorist-oriented activities in Punjab, UP, Delhi and worsening situation in the North-East are all signs of it. The answer lies in effective administration and good policing.

Proxy War - Military Dimensions

The Mujahideen (Foreign and Pakistani mercenaries) will be hardened militants, better trained and battle-tested professionals, with lesser degree of sensitivity to local population and ideologically Islamised. They will use more difficult and inaccessible areas that

are conducive for operations, security and sustenance. Operations will be sustained, well planned and aimed at achieving well thought out objectives in each area.

Pakistan will have two broad aims in its proxy war in Jammu & Kashmir. One to enlarge the areas of conflict both territory and activity wise beyond the geographic boundaries of Kashmir Valley and sustain it. Secondly, to orchestrate an increasing level of overt military actions along LC accompanied by subversive acts and sabotage in depth areas of LC to sustain infiltration and keep Indian troops engaged.

The proxy war template terrain-wise will consist of the Outer Core, the Mid Pir Panjal Spine, the Inner Core and expansion of Muslim-dominated areas outside the valley to increase the areas of influence and conflict.

(a) The Outer Core consists of the LC and areas immediately in depth, to be addressed by overt military actions, short of conventional attacks and sabotage depending on the sensitivity of the area and to meet the requirements of infiltration and exfiltration of men, material and arms.

(b) The Mid Spine of Pir Panjal Range and its adjoining areas for reasons of security, sustenance and accessibility to isolated vulnerable areas for operations. Control of Pir Panjal Range will give militants flexibility of movement both for induction and operations in the Valley, Doda, Jammu, Udhampur and Poonch and Rajouri areas.

(c) The Inner Core of the Kashmir valley is essential to justify the proxy war and to establish the legitimacy of Islamic Jihad within the Kashmir Valley, and internationally.

(d) Expansion of the Muslim-dominated areas in itself and domination of these areas by the militants is essential for success of the proxy war.

In the overall context, while military priority areas will be the LC and the Mid Pir Panjal spine and adjoining areas, political and internal security imperatives dictate priority to the Inner Core and

prevention of spread of militancy to other Muslim-dominated areas and their enlargement, i.e., prevent spread of fundamentalism and a communal divide.

TACKLING OF PROXY WAR

Tackling of proxy war will require political, socio-economic measures and military action.

Political

At the political level two major issues are demographic spread and fundamentalism.

Demographic Spread. Spread of valley Muslims into Doda and Jammu areas and along National Highway 1A and unchecked influx of Pahari Muslims and Gujjars and Bakarwals into Jammu and Udhampur areas has disturbed the traditional population structure in these areas. This, coupled with the Mujahideen mercenaries targeting the minority Hindu community in some of these areas, is a sure recipe for communal divide. Any exodus of minority community will have long-term implications. Such changes are easier to prevent than to reinstate. It is only by understanding the population and its perceptions that we can defeat this design of proxy war. I have already mentioned the case of the highly mobile Gujjars and Bakarwals who inhabit our border areas and have been traditionally loyal to India. In the changed demographic scenario, we must pay greater attention to the 'Population Terrain'. This is even a higher priority task than anti-militant operations.

Fundamentalism. In the context of Jammu and Kashmir, fundamentalism is a multidimensional phenomenon. It has an ethnic, social, cultural and religious content. In the Valley, propagated Islamisation of the Wahabi orientation is alien to Kashmiri Muslims' social and culture ethos. We must prevent its imposition and reinforce the ethos of the Sufi culture and Kashmiriyat. As discussed earlier, Pakistan's main thrust will be to exploit the alienation of Kashmiris and the primary vehicle will be *Jamait-i-Islami*. To tackle it, political and administrative initiatives in the socio-economic field and social action at the community

level are required. The main thrust has to be in the field of arresting demographic spread and social and physical security. Both require political and administrative will. The Hindu reaction in Jammu area should be of equal concern to us to ensure that it is never permitted to manifest as it will lead to communal divide. It needs to be tackled as firmly as militancy.

Military Aspects

In the military field, the responses of the security forces has been professional, innovative and good. This is probably the major reason for the turn around of the situation in J & K and they deserve our appreciation. Having said so, I wish to make some broad suggestions and observations based on the future proxy war scenario.

Command and Control

The unified Headquarters concept as instituted and implemented in J & K functioned inadequately during central rule and has got further diluted under popular rule. In fact it was neither unified nor provided the command directions to operations. It was essentially a council of representatives of the administration, Police, Army and CPOs, which generally discussed insurgency and militancy related issues. It never formulated operational policy, issued directions or tasked forces or held people accountable. What made it function to whatever extent it did was the personality of the Governor, the Army and Corps commanders, the security advisor and the desire of every one to deal with the situation. The basic lacunae of varying perceptions and isolated and disjointed functioning remained. This is a reflection of our national character and attitude which have inhibited the Government's functioning.

The distortions of dealing with ordinary law and order situation by the Ministry of Home Affairs have crept in the handling of insurgency and terrorist environments. They discuss and think in terms of companies, whereas the basic unit in CI environment is a battalion with its command and control. Expediency rather than long-term impact of events and political considerations unrelated

to security take priority. This has led to escalation in the number and types of CPOs without corresponding increase in capability.

At the directional level, there was no directive either by centre or at the state level except General Rao's policy pronouncements. It has to be a joint effort of political and military minds and should be formulated jointly by MHA, MOD and MEA with Army representing the MOD.

In a CI environment, at the tactical level there is operationally no distinction between command and control. CI operations are most mobile, opportunities are fleeting and come after long patient waiting, intelligence building and the entire exercise is simultaneous with protective and surveillance duties. The command has to be direct and execution immediate. Formation commander's feel of the area backed by formulation and constant updating of the overall picture provide flexibility and anticipatory capability for actions. All units including CPOs are tactically deployed in a formation area of responsibility. The need is therefore for all to be under operational command of the formation commander responsible for the area. Units continue to be commanded by their own officers. Both the function and responsibility cannot be diluted without paying a heavy price. These functions cannot be exercised by a security adviser or a unified Headquarters; neither can these be divided.

The concept needs reorientation and reexamination keeping in view dimensions of proxy war, geography of J&K and political imperatives. The traditional structure which has emerged by experience, usage, tradition and acceptance by all in the North-East could provide the framework.

Dichotomy of handling such situations by different individuals with varying perceptions has been the bane of our functioning. It encourages different organisations and their heads reporting directly and differently to their bosses in the state and the centre. A word about the institution of the security adviser is called for. He neither advises nor commands essentially due to non-institutionalisation of the system. Essence is that he must act as the Home Minister under central rule and a link between Chief Minister and Home

Minister on security issues when popular government is in position.

LC and Mid Pir Panjal Spine

LC and the Mid Pir Panjal spine are the key areas in that order for anti-militancy operations in the emerging proxy war scenario.

LC. LC is both a live and sensitive border with opposing forces deployed in close proximity. It has to be manned, meeting the contradictory requirements of a defensive deployment and to check infiltration and exfiltration. While the basic defence posture on LC should not be altered, adjustment will have to be accepted to meet the requirements of countering infiltration and exfiltration. The existing configuration of LC has the disadvantage of not following well-defined geographical features and difficult terrain gives it a high degree of porosity. In certain areas population centres with common ethnic groups are close to the LC, adding to the problem.

The requirement of ensuring sanctity of the LC, defending vulnerable posts from surprise attacks and defeating infiltration, coupled with frequent exchange of fire, makes it an onerous task and exhaustive on resources.

The key to success lies in a mixture of physical and electronic surveillance in depth in a tiered fashion with reaction capability within each tier. It should cover areas in depth to atleast one night's infiltration capability of militants. In difficult and wooded areas, this depth should be extended to one day's infiltration capability. Depending on the depth of main population centres, the intermediate areas may be covered by troops deployed on the forward population centres as a part of CI Grid. The pattern, frequency and timings of surveillance elements (Patrol, Ambushes and OPs) should be varied within each tier and from tier to tier to ensure no gaps are left. This will require a high degree of coordination, which is better achieved by units deployed in depth covering more than one tier and sub-units disposed to cover inter-unit boundaries and gaps in depth. The number of tiers will depend

on terrain and distance in terms of infiltration and exfiltration time. The other key areas are local intelligence and anticipatory planning based on thorough knowledge of activities and reading the local populations's mind and perceptions.

The biggest handicap in the surveillance system is the total absence of electronic surveillance and detection capability. The need for priority introduction of light surveillance and sound detection system at the divisional level cannot be over emphasised. Similarly, light and secure communication system is a long felt necessity in the field units deployed on the LC.

Mid Pir Panjal Spine

This has assumed importance both as a transit and staging area during infiltration and exfiltration, for inter-region movement and finally for addressing vulnerable areas in its higher reaches. It should be examined from both points of view.

The deployment of security forces should be primarily to deal with infiltration and exfiltration and inter-region movement. As regards the vulnerable minority pockets in the upper regions, these should be first grouped based on their locations, village defence set-up organised and armed irrespective of religious affiliation and provided police protection, communication and surveillance to enhance its resistance potential. Once this is organised the SF (Army, RR, BSF) deployed on a counter infiltration role nearest to it should establish communication with the group of villages, keep surveillance and react in case of threat. More than resources, it requires organisation, coordination and local resistance in the shape of village defence set-up.

Need for Good Policing

While there is a need for good policing under normal conditions, its role becomes all the more important in a disturbed environment. Surveillance and policing of population centres, protection of vulnerable civilian targets, local intelligence apart from normal law and order are some of the additional tasks. The

J&K police has revived itself as a force under the new DGP and has started taking over population centres from the CPO's, which is a healthy sign and does them credit. But it should become the bulwark of local resistance and defence against militancy. This will require both reorientation and revamping. The areas of attention are widening the recruitment base, training to meet challenges of militancy and measures to raise its morale. It needs good promotion policy, housing, better weapons and equipment and above all local junior leadership of high calibre at the operational level.

Approach to Jammu and Kashmir Conflict

Our approach to the proxy war in Jammu and Kashmir has to take into account the external and internal factors which have been discussed. To resolve it will require Pakistan accepting the reality that she will never win the proxy war. Such a situation is unlikely to come about till the proxy war is defeated by making its cost prohibitive to Pakistan. Therefore our approach of necessity has to be guided by real politik. The core lies within and it is here that an 'ideal politic' and cooperative approach needs to be adopted to create a healthy and secure environment. This will require political decisions or initiatives, already taken to be implemented, removal of alienation of the masses and relentless fight against fundamentalism. Simultaneously, military action should continue to sustain a favourable ground situation, but on its own it can only provide the base, the real solution lies in the political and socio-economic fields. The cutting edge will be provided by political will and a holistic policy, for the proxy war will be long drawn out.

Insurgency in Assam

LT GEN SK SINHA, PVSM (RETD)

Introduction

The North East is connected to the rest of India by a tenuous land link through the Siliguri corridor. Assam controls the eastern end of this neck. Loss of Assam would mean the loss of the entire land mass in the North East with its rich natural resources - tea industry with a turn over of Rupees 3000 crores and 50 per cent of the on-shore crude oil of the country, including oil shale reserves capable of sustaining crude oil production of 140 million tons annually for 100 years. The annual value of crude oil drawn from oil wells in Assam is about Rupees 2000 crores. Assam also has large quantities of other mineral resources like coal, gas, limestone, mica and so on. This region has 40 per cent of the water wealth of India.

If at any stage China were to undertake large scale military operations against India, the main axis of invasion is likely to be from Yunan via Northern Myanmar into Assam. This is the shortest and easiest route from mainland China to India. The routes across Tibet are longer and the terrain is more difficult.

We have ongoing insurgencies in Assam and Kashmir. The national focus is more on Kashmir, where a proxy war has been raging, than on events in distant Assam. The loss of Kashmir or to be more precise, Srinagar Valley and some portions of Jammu province, cannot hurt our strategic and economic interests to even remotely the same extent as the loss of Assam will entail. Emphasis has to be laid upon this basic point so that our decision makers at Delhi and our intelligentsia are seized of the strategic and economic importance of Assam.

Excerpted from the text of the talk at the USI, New Delhi on 29 July 1998.

Lt Gen SK Sinha, PVSM (Retd) is the Governor of Assam.

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Another important point is that Assam is not only one of the seven States of the North East but is the core State of that region. At the time of Independence, the North East comprised Assam and the two princely States of Manipur and Tripura. Despite the balkanisation of undivided Assam into five different States, the pre-eminence of Assam in the North East still prevails. The population of Assam is more than twice the total population of the remaining six States of the region. The ratio in terms of economic resources is even more heavily weighted in favour of Assam.

Background of Insurgency in Assam

Insurgency thrives when the local population has a feeling of separate identity in terms of ethnicity, culture and history. It gets compounded when it is combined with a feeling of neglect and being discriminated against. And it is aggravated when there is lack of good governance and economic backwardness, particularly large scale unemployment. The availability of outside support from across the border adds fuel to the fire. All these factors which contribute to eruption of insurgency have been present in Assam to a marked degree. However, one important aspect is missing. So far insurgency in Assam has not thrown up a charismatic leader. In the case of Nagaland there was Phizo and in the case of Mizoram Laldenga. The insurgents in Assam do not have a comparable leader.

The first insurgent movement in India started over 40 years ago in Naga Hills, then part of Assam. It spilled over to Manipur and some ten years later another insurgency erupted in Mizoram. Insurgency in Mizoram was extinguished a decade ago through an enduring political settlement. This has been one of the few success stories of combating insurgency. Insurgencies in Nagaland, Manipur and Mizoram have been essentially peripheral insurgencies on the border involving hill tribes. Insurgency flared up in the peaceful Brahmaputra Valley much later, affecting the heartland of the North East. The dimension of insurgency in Assam has been much bigger in scope and size.

Assam is the meeting ground of Aryan, Dravidian and

Mongoloid ethnic streams comprising brown, black and yellow races. Ethnically, it is the most diverse State of a most diverse country. It is not only ethnically different from the rest of the country, but even geographically and historically it has had a different ethos. The people of our country are ill-informed about Assam. There have been instances of tribesmen from Assam coming to Delhi and being asked which country they belong to. The Father of the Nation while in South Africa wrote an article in which he described the people of Assam as freebooters like the Pindaris. Subsequently, when he launched the freedom struggle and first visited Guwahati in 1920, he offered his apology at a public meeting, saying that he had been ill-informed about Assam and that its people were just as civilised as the people in the rest of the country.

It is not widely known that till the British occupied Assam in 1826, Assam was never a part of the Indian State. The Mauryan Empire, the Gupta Empire, the Delhi Sultanate or the Mughal Empire did not include Assam. During the medieval period, Assam successfully repulsed several invasions of Delhi Sultans and Mughal Emperors. This fact of history is a source of pride for the people of Assam but it also provides a base for a separatist outlook. Two aspects connected with the British rule led to the people of Assam having an anti-outsider attitude. With the British came the Bengalee clerks and Bengalee professionals like doctors and lawyers. They dominated the administration and the professions. Bengalee was made the State language of Assam and Assamese was labelled a dialect. After years of agitation by the people, Assamese was ultimately accepted as the State language in Assam. The second aspect was the tea industry developed by the British, which became a symbol of exploitation of Assam by outsiders. The tea gardens were owned by the British and dividends went to Britain. The middlemen were all Marwaris and their profits went to Rajasthan. The labour in the gardens was mostly from Bihar, U.P. and Madhya Pradesh. They sent their remittances to their families in those States. The Assamese were kept deprived of the benefits flowing from the tea industry.

As a result of the partition of Bengal in 1905, Assam ceased

to be a separate province and was merged with East Bengal. The Assamese became a minority in the new province. In 1911, the partition of Bengal was annulled and Assam again became a separate province. During the Second World War, Assam had a Muslim League Ministry. On the plea of 'Grow More Food', the Sadaulla Ministry settled large tracts of State land with Bengalee Muslims for political reasons. Wavell, the then viceroy, was critical of this. He wrote in his book, *The Viceroy's Journal*, that the Muslim League Ministry was not doing this to grow more food but to grow more muslims in Assam.

It is pertinent that Jinnah's Private Secretary Moinul Haque Choudhury told him, "I shall present Assam to you on a platter". Zulfikar Ali Bhutto, in his book, *Myths of Independence*, referring to disputes between India and Pakistan wrote : "One nearly as important as Kashmir dispute is that of Assam and several districts adjoining East Pakistan... To these East Pakistan has very good claims". Even a pro-India President of Bangladesh like Sheikh Mujibur Rahman once said "East Bengal must have sufficient land for its huge population and Assam will give it full scope for expansion because Assam has abundant forest, mineral resources, coal, petroleum, etc." It has also to be noted that, next to Kashmir, Assam is the State with the highest percentage of Muslim population in India. It will thus be seen that Assam is a potential flash point in India's relations with her neighbours.

After Independence, the influx of illegal migrants from East Pakistan and now Bangladesh has continued unabated. This influx is due primarily to economic reasons. With a 2.2 per cent rate of growth of population, Bangladesh is a Malthusian nightmare. The density of population in Bangladesh is 987 per square kilometer as against 289 per square kilometer in Assam. The per capita income of Bangladesh is only Rs. 1700 per year, which is about half the per capita income of Assam. The international border between Bangladesh and Assam is highly porous, having large riverine tracts. In the circumstances, large scale influx of population becomes inevitable. Matters are made worse by some political parties encouraging this migration for vote bank considerations. This has accentuated the fear of the Assamese people that soon

they would be reduced to a minority in their own State as has happened to the indigenous people of Sikkim and Tripura. It is this feeling which has been at the root of the separatist aspirations of the Assamese people and of their taking to insurgency.

There has been a widespread feeling among the Assamese people of being not only neglected by Delhi but also of being discriminated against. This again has a long history. Our history text books give details of Indus Valley, Ganges Valley, Krishna Valley and Cauvery Valley civilisations but hardly mention the Brahmaputra Valley civilisation. Rana Pratap and Shivaji are rightly revered as our national heroes but Lachit Borphukan who was an equally great, if not a greater, military leader is not heard of outside Assam nor mentioned in our text books. In one respect, the history of Assam has been unique. During the medieval period all States in India with the exception of Assam succumbed to invasion and to being ruled by the invader. For nearly seven hundred years, despite repeated invasions, Assam proudly held its flag of independence aloft. And the Assamese are very proud of this fact.

Assam's contribution to Independence was no less than that of other States. Lokpriya Gopinath Bordoloi, the first Chief Minister of Assam, was a great national leader who influenced the course of our national history. The Cabinet Mission Plan of 1946 had placed Hindu majority provinces in Group A and Muslim majority provinces in Group B with one exception each. Group C comprised the Muslim majority province of undivided Bengal and the Hindu majority province of Assam. The population of Bengal being six times more than that of Assam, the Assamese would have got engulfed into a theocratic State. The grouping scheme was accepted by Jinnah who, at Guwahati, declared that Assam was now in his pocket. The Congress leaders Nehru, Patel and Azad also accepted such grouping. Bordoloi opposed this proposal and the Assam Congress under his leadership came out openly against the grouping. Nehru tried to persuade Bordoloi to accept the grouping plan saying that Assam should be prepared to make some sacrifice for the Independence of India. Luckily for Bordoloi, Mahatma Gandhi supported him and the grouping plan got shelved. Apart from Assam being saved from becoming a part of East

Pakistan, undivided Bengal and undivided Punjab were also saved from becoming part of East Pakistan and West Pakistan, respectively. If these two provinces had not been partitioned, Calcutta would have become a port of East Pakistan and Delhi would have been a frontier city bordering West Pakistan. After Independence, Bordoloi, as a member of the Constituent Assembly, was the architect of the Sixth Schedule of the Constitution which became a virtual Magna Carta for the tribal people. Delhi awarded the Bharat Ratna to erstwhile Chief Ministers who had participated in the freedom struggle like Dr. BC Roy and Govind Ballabh Pant. It even awarded the Bharat Ratna to MG Ramachandran, the late Chief Minister of Tamil Nadu, who played no role in the freedom struggle and who made no contribution outside Tamil Nadu. The fact that Delhi did not give any recognition to the great contribution by Lokpriya Gopinath Bordoloi is viewed as yet another example of discrimination against Assam.

There were also other instances of neglect and discrimination. Partition played havoc with the geography of Assam and the North East. This region, with the tenuous Siliguri land link with the rest of the country and bordering four foreign countries, Bhutan, China, Myanmar and Bangladesh, has virtually become landlocked. The entrepot of Chittagong was lost and so was the use of the Brahmaputra waterway for commerce. Goods transported to Calcutta from South Assam or Tripura which used to cover a distance of some 400 kilometers had to take the circuitous route via Siliguri covering 1600 kilometers. All this shattered the economy of this region. Big hydel and other development projects were undertaken in Punjab, Bihar and other States but Assam, with its tremendous potential, was totally neglected. There was widespread demand in Assam for an oil refinery to be constructed in the State. In view of worsening relations with China, the Government of India ignored this demand and decided to locate the oil refinery at Barauni in Bihar. The Assamese pointed out that if the oil wells and the oil pipelines were secure in Assam, there was no reason why the oil refinery could also not be secure. Then came the Chinese aggression and our humiliating defeat in the Himalayas. At the height of the crisis, when the Chinese were poised to enter the plains of Assam, Nehru broadcast to the Nation, "My heart

goes out to the people of Assam." This had an adverse effect in Assam since it seemed to imply that Delhi was abandoning the Assamese people. Another example of discrimination by Delhi against Assam has been the IMDT (Illegal Migrants Deportation Tribunal) Act for detecting and deporting foreigners in Assam, while the rest of India remains covered by the Foreigners Act. This means that a Bangladeshi illegal migrant coming to West Bengal or any other State has to be identified and dealt with by the State but in Assam the onus of identifying the illegal migrant has been placed on the people. Going on further, a Rupees 8000 crore loan waiver was given to Punjab and generous assistance to reimburse security-related expenditure is being given to the state of Jammu and Kashmir. Assam which is also combating insurgency has not been treated so generously.

Outbreak of Insurgency

There are two major insurgency movements in Assam - ULFA (United Liberation Front of Assam) and Bodos. The latter has two armed groups demanding Bodoland. One wants it as a State within India and the other is for secession and a sovereign State. Besides these two main militant movements, there are also other militant outfits, like the spill over of NSCN from Nagaland and other minor insurgent groups like Karbi National Volunteers, Bengalee Tiger Force, Birsas Commando Force and so on.

A highly successful student movement against outsiders was launched in Assam in the early Eighties. In the wake of this movement, 3000 people were killed in Assam between 1979 and 1983. Wide support for the movement was demonstrated during the Parliamentary elections in 1983. As a result of its boycott call, there was only a three per cent voter turn-out in Assam. This movement gave birth to a political wing in AGP (Assam Gana Parishad) and a military wing in ULFA. The latter established contacts with ISI agents of Pakistan and its top leaders visited that country and Afghanistan. They also established contact with the NSCN and their cadres went for training to Myanmar. After the Assam accord and the ensuing elections, the AGP came to power in Assam. During the first AGP Government of Prafulla Mahanta,

the ULFA had a free run of the State. ULFA's writ ran throughout the State and Government officials at all levels meekly complied with its orders. Big business houses and corrupt Government officials too contributed large sums to its coffers. ULFA is said to have collected Rupees 400 to 500 crores. Its leadership occasionally helped the poor, acquiring a Robinhood image. By 1990 the ULFA was at the peak of its power and a climate of fear had become all pervasive in Assam. ULFA's strength was estimated at 3000 hardcore militants with some 2000 weapons. They had committed 113 murders and no action had been taken in any of these cases.

It was at this stage that the *Doom Dooma* incident occurred. The seven leading tea gardens of that region were asked to pay Rupees one crore each. *Unilever*, a leading multinational, decided to wind up their business. With the help of the Central Government's intelligence agencies, it secretly withdrew its managerial staff and families in a special aircraft to Calcutta. It was at this stage that the Government of India decided to dismiss the State Government and impose President's rule. The Army was called out and *Operation Bajrang* was launched in September 1990. By April 1991 the situation was restored sufficiently to hold elections. The Army was withdrawn and this gave ULFA an opportunity to reorganise. The AGP had got discredited on account of corruption and dissension among its leadership. The Congress defeated the AGP at the elections and a Congress Government came to power under Hiteswar Saikia. Within a few hours of Saikia coming to power, the ULFA struck by kidnapping 14 senior officials of Assam's oilfields including a Soviet engineer. An Additional Secretary to Government in Guwahati was also kidnapped. The Soviet engineer was killed. Then another Indian engineer who was to be released by ULFA was also killed. The new Chief Minister lost several close relatives in ULFA attacks. His mind was made up and the Army was again called in.

Operation Rhino was launched in September 1991 which, in terms of results achieved, was more successful than *Operation Bajrang* as, by now, the Army had been able to build up a good intelligence network. By January 1992, ULFA agreed to a political

dialogue and some of their top leaders came to Delhi for talks. These leaders wanted time to get Paresh Barua, the head of the military wing who was at Dhaka, to also agree to the talks. They were allowed to go to meet him. Instead of bringing Paresh Barua, they joined him. Chief Minister Saikia had Army operations suspended and now tried his hand at a political solution. He got 3500 ULFA men to surrender but they were allowed to retain their personal weapons for security. Each person was given a soft bank loan of Rupees 2 lakhs with the Government providing Rupees 50,000 as seed money. The SULFA (Surrendered ULFA) experiment was a disaster with the Government losing Rupees 25 crore by way of seed money and the banks losing Rupees 75 crores, as the loans were not repaid. SULFA took to committing crime and many rejoined ULFA.

Saikia died during the State elections in 1996 and the second AGP Government came to power with Prafulla Mahanta as Chief Minister. In their election manifesto, the AGP had promised that the Army would be withdrawn, black laws repealed and the people of Assam will be given the right of self-determination. Initially the new Government was hesitant to take action against the militants. However, in 1997 a unified command was set up. This terminology is a little misleading. It is not a unified command with all the forces working under a Supreme Commander. It is primarily an organisation to ensure co-ordinated functioning. However, more important than any framework are the people who operate that organisation. This system is working fairly satisfactorily and has produced results.

Turning to the Bodo problem, the Bodos are plains tribesmen and the original inhabitants of Assam. Today with a population of eight lakhs, they constitute only four per cent of the population of Assam. They are not in a majority in any district, sub-division or even Police Station of Assam. They claim the entire North bank of the Brahmaputra, with a population of over six million in which their population is only four and a half lakhs. Moreover, Bodo villages are not contiguous and this poses a problem in delineating a compact Bodo area. A Bodo accord was signed in 1993 between the Government of India, the Government of Assam and Bodo

leaders creating a Bodoland Autonomous Council within the State of Assam. Due to differences, the geographical boundary of this Council has not yet been demarcated. The two Bodo militant groups – Bodo Liberation Tiger Force (BLTF) demanding Statehood and the National Democratic Front of Bodoland (NDFB) demanding independence – have been engaged in ethnic cleansing. Santhals are their prime targets.

Current State of Insurgency

The AGP Government came back to power in 1996. In a bizarre development, the Chief Secretary and the Director General of Police, Assam, deserted their posts and left Assam overnight. Militancy increased and the Army had to be called in again. By August 1997 the level of violence had reached its zenith. A brigadier was shot dead on the streets of Guwahati and, in a separate incident, an Inspector General of Police was also shot in the city. Two Colonels were shot inside Kamakhya Temple. Two army personnel were killed inside Krishna Temple at Tezpur. The Chief Minister had a narrow escape when a culvert was blown inside Guwahati as his convoy passed over it. The Bodos launched themselves on a killing spree as a part of their ethnic cleansing drive. They massacred 700 non – Bodos. Two lakh non - Bodos, mostly Santhals, sought safety in refugee camps. Explosions had occurred on passenger trains, notably the Brahmaputra Mail, in which a large number of passengers had been killed. Several railway culverts had been blown and rail link between Assam and the rest of the country was snapped for 10 days. Even though the situation was grim, the central leadership felt that it would be better to crush insurgency with a popular Government in power rather than under President's Rule.

During the last one year, considerable progress has been made in containing violence. The number of militants killed in encounters has been over 250 which is more than double the average in previous years. The recovery of weapons also showed a marked increase. Nearly 500 weapons of all kinds were recovered. About Rupees one crore in cash has also been recovered from the militants. The casualties of Security Forces

have got halved. All this has been possible due to the vigorous efforts of our Security Forces comprising the Army, the Paramilitary and the Police. A special word of praise needs to be given to the Army for performing its task in a very creditable manner. Today there are no militant camps in Assam. They have moved into the jungles of neighbouring Bhutan and some are reported to be in Bangladesh. The top leadership of the militants is in Dhaka. Moreover, the judicial process is much too slow. Militants captured with great effort are frequently let off on bail and they almost invariably jump bail at the first opportunity. This amounts to recycling of militants.

Notwithstanding all these difficulties, a big dent has been made in ULFA militancy. During the last week of July, 51 hardcore ULFA militants surrendered with weapons. More may surrender in the near future. This is a healthy sign. However, operating from sanctuaries in Bhutan, their potential for hit and run remains. As regards Bodos, they being a closed society, our intelligence network has not been as successful as in the case of ULFA. Moreover, Bodos have been targeting Santhal villages and it is difficult to provide adequate security for all these soft targets.

In January 1998 both ULFA and Bodo militants gave a boycott call of the Republic Day celebrations. They wanted the Republic Day observed as Occupation Day with protests and black flags. A massive deployment of Security Forces ensured that the Republic Day was duly celebrated and no protests were allowed to take place. The militants had threatened railway trains and warned people against travelling by train on Republic Day. However, the government ensured that through beefed up security measures including helicopter patrols and pilot engines for passenger trains, train services were run in Assam without any incident. There was no militant organised violence in the State on Republic Day. The Lok Sabha election of February 1998 was another challenge. The militants not only issued a call to boycott elections but also threatened people who exercised their franchise with reprisals. The government made elaborate security arrangements. One hundred thousand leaflets were dropped from helicopters all over the State urging the people to vote and promising them security.

The results obtained were beyond anticipation. There was not a single incident of major violence on polling day in Assam and the voter turn-out was 62 per cent as against the national average of 54. During this election Assam was one of the very few States in the country where polling was completely peaceful.

Change in People's Attitude

More important than the very substantial successes gained by the Security Forces in combating insurgency is the marked change in the attitude of the people of Assam towards insurgency. Till last year, when an insurgent was killed in an encounter, Security Forces were accused of excesses. The insurgent was hailed as a martyr and funeral orations were delivered at well attended meetings. All this has now stopped. Newspapers in Assam were afraid to publish articles or write editorials against the insurgents. This fear has been eradicated and many newspapers have begun writing against the insurgents. There have been processions in cities demanding the end of violence. Political activity in terms of holding of public meetings, despite boycott calls, has been taking place. All these are very healthy signs indeed, and show a marked change in the attitude of the people.

Psychological Initiatives

It is well known that insurgents fight with two weapons, namely fire-arms and propaganda. Both are equally important for them. They malign the Security Forces through propaganda and highly exaggerated accounts so that the people become hostile to them and sympathetic to the insurgents. It is essential that counter-insurgency operations are directed against the insurgents both on the military and psychological fronts. Counter-Insurgency doctrine caters for what can be referred to as psychological initiatives.

The State Government has been taking psychological initiatives in a subtle and coordinated manner to win the hearts and minds of the people and to isolate the insurgents from them. This is being done through the medium of Documentary Films on television with articles and Magazines conveying appropriate

themes and with civic activity by Security Forces. Another method adopted is glorifying the past heroes of Assam. It is essential for the Central leadership to identify itself with Assam's rich historical heritage and glorify its past.

Development Activity

The other important area on which the government is focusing upon is development. Despite its rich resources, Assam is a very backward State and heavily dependent on the Centre for funds to carry out various development works. Prime Minister H D Deve Gowda visited the North East in 1996 and announced a Rupees 6,000 crore development package. Various projects are under execution. All these will take time. The Shukla Commission has recommended Central aid of Rupees 18,000 crores to the North East during the Ninth Plan. In view of the country's present financial situation, one does not know how much of this will be forthcoming. Besides mega projects for development, various micro projects, particularly in the agricultural sector, are also being planned. Economic development and eradicating unemployment not only holds the key to prosperity but can be a very potent weapon in the fight against insurgency.

Conclusion

There can be no military solution to insurgency. It has to be a political solution. Ideally, dialogue with militants and a political settlement should bring about the end of insurgency. The government has been repeatedly inviting the insurgents for talks, but they have been insisting on three pre-conditions - talks to be held outside India, UN representatives to participate in these talks and only the sovereignty of the people of Assam be discussed. However, these conditions are totally unacceptable to the government which should continue a multi-prong assault on insurgency on the military, psychological and development fronts. This will ultimately make the insurgents irrelevant to Assam. Moreover, the attitudinal change amongst the people of the state would enable the government to patiently work towards ushering in a peaceful and prosperous Assam.

Insurgency in North-East India : The External Dimension

BRIG SP SINHA

Introduction

The extent of moral and material support by an external power or powers is one of the important factors for the success of an insurgency. In the case of the North-East, the insurgents have received support from China, Pakistan and Bangladesh at some stage or the other. The geographical location of the North-East which has international borders with China (Tibet), Myanmar, Bhutan and Bangladesh lends itself ideal for insurgents to receive support from hostile neighbours.

The Naga insurgency started in 1956, followed a decade later by the Mizo revolt in 1966. Today every state of the North-East has insurgency in some form or the other. The seeds of separation in the hill districts of the North-East were, however, sown prior to independence. In the years before India became free from colonial rule, a scheme was floated by the British which envisaged the creation of a "Crown Colony" consisting of the hill areas of Assam and Burma which in due course would be an independent state.¹ Another scheme was mooted by Macdonald, the District Officer of Lushai Hills, for carving out an autonomous state comprising of Lushai Hills and a portion of Chin Hills of Burma, which was to be a protectorate of the British. It was argued that the "tribes were not Indians, neither in origin nor in language, nor in habits, nor in outlook" and that it will be unfair "to allow this great body of non-Indian Animists and Christians to be drawn into the struggle between the Hindus and Muslims...". Although the concept of the 'Crown Colony' did not fructify, the idea created the basis for some of the psychological problems that confront the region today.

The Western Perception of North East India

Equally significant was the perception held by other Western powers about North-East India. As early as 1966, reports were circulated by Agencia Internacional de Prensa (International Press Service) datelined Dacca that there were reports to create a "United and Independent Bengal" comprising East Pakistan, West Bengal, Assam, Nagaland, Manipur, Tripura, Sikkim and Bhutan. The report read :

"The separatists are counting on USA and other Western powers to give them necessary assistance. They are confident that these powers would be interested in establishing an independent state in SE ASIA, which could help to normalise conditions there and which could provide shield against the Chinese aggression..."

It is in this context that the circular from the United States International Communication Agency issued in June 1979 entitled "Project Brahmaputra" is significant. The circular was sent to all its branches in Delhi and Calcutta informing that the special research cell of George Washington University, with the approval of the State Department, had detailed several teams of investigators to conduct research in the North-Eastern states, Sikkim and Bhutan. The purpose of the research was "to throw light on the public opinion in the region to establish in what measure the present status of these states remain acceptable or whether there are indications that the formation of a 'New State' is a current problem."²

The emergence of Bangladesh in 1971 and the rapprochement of relations between USA and China changed the geopolitical scenario in this region. And the Western perception of the union of predominantly Christian tribal areas of North-East with India as unnatural and inherently unstable persists. Such a perception has had a negative effect on the 'psyche' of rebel outfits and indirectly encourages separatism.

Pakistan's Abetment of the North-East Insurgency

Pakistan's abetment of insurgency in the North-East has been direct and pervasive. After the Army was called out to fight the Naga insurgency in 1956, Phizo crossed over to East Pakistan where he was welcomed with open arms. After a prolonged stay of three years in Dacca, he finally came to Britain under a Peruvian passport. He died in exile in Britain on 30 April 1990.

Phizo's object in going to Pakistan was to seek arms and mobilise support for raising the Naga issue in various international forums. Between 1962 and 1968, at least ten underground Naga gangs crossed over to East Pakistan.³ It is estimated that a total of 2500 Naga insurgents were trained in East Pakistan in camps established at Rangamati, Ruma, Bandarban, Rangkhiong, Alikadam close to the Indian border in the Chittagong Hill Tract (CHT). The insurgents were supplied with arms and ammunition which included light machine guns, carbines, rocket launchers and 2-inch mortars.

The first gang of 200 insurgents led by Kaito Sema, C-in-C, Naga Home Guards (as the underground Naga Army was then called), went for training to East Pakistan in early 1962 through North Cachar Hills. The gang returned to Nagaland in March 1963 and put its training to test by blowing up the railway track near Rangapahar in May 1963. It is interesting to note that during the Chinese aggression in 1962, the Naga insurgents did not create any trouble and remained inactive. The reason for this in all probability was the influence of the Church on the insurgent leadership.⁴

Another gang of about 500 Naga insurgents under Dusoi Chakhesang trekked to Pakistan through the Chin Hills of Burma in October 1963 and returned to Nagaland in May 1964. The biggest group of nearly 1000 insurgents was led by Zuheto Sema in October 1964 after the suspension of hostilities negotiated by the Peace Mission headed by Jayaprakash Narain. After training, the group infiltrated into Nagaland through Somra Tract in Burma between Aug-Sep 1965.

During the 1965 Indo-Pak War, Pakistan put pressure on underground Nagas to start hostilities which would have meant violation of the terms of the agreement for cessation of hostilities. The underground preferred to consolidate their position rather than start open hostilities. Nevertheless, the underground leadership issued a statement which called upon the Government of India "to take immediate steps to disengage the services of any Naga".

Subsequent efforts to send Naga insurgents to East Pakistan were very successful. Mowu Angami tried to take a gang via Burma which was intercepted by the Burmese Army and the effort was aborted.⁵

The Pakistani support to Mizo insurgency was more crucial. Apart from a long border with Bangladesh which provided many infiltration routes, the Mizo insurgents had an ideal sanctuary in CHT across its border. Laldenga, the Mizo leader, had done his homework well. He and his associates had crossed the border in the first week of December 1963 and established contact with Pakistanis who were only too willing to help. Consignments of arms and ammunition from East Pakistan were despatched from Chittagong via the Dohazari railhead to CHT, from where the rebels moved them to safe places within Mizoram by January 1965. The Mizo uprising started on 28 February/1 March 1966, which took the whole country by surprise. It took the Indian Army more than a month to bring the situation under control.

After the Army crackdown, the Mizo shifted their operational base to safe areas in Myanmar and CHT in erstwhile East Pakistan. Interestingly, Laldenga's liaison officer on behalf of the Pakistan Army in the late 1960s was General Ershad, then a captain. At the peak of insurgency, there were about 7,000 men and women of Mizo National Army, most of them in East Pakistan. They were virtually given a free run, well supplied with weapons and food by Pakistan.⁶

China's Support to Naga, Mizo and Meitei Rebels

It was the Chinese moral and material support to Naga

insurgents which gave a boost to their revolutionary fervour. The Nagas turned to China mainly for two reasons. In the sixties China was the inspiration for revolutionary struggles in many parts of the world. The Chinese support to Nagas had the potential of internationalising their (Naga) cause and boost the morale of the rebels. The other reason was the increased surveillance on the Indo-Pak border. For the Chinese, support to Nagas and other insurgents of the North-East would keep the pot boiling and tie down large numbers of Indian troops in counter insurgency operations.

The active Chinese support to Naga insurgents started in 1966. They provided training to Nagas in guerrilla and subversive warfare in Yunan province of mainland China and later in Lhasa in Tibet. The first batch of 300 Nagas under Muivah and Thinsuelie crossed the border into Myanmar in November 1966 and trekked nearly 1000 kms before reaching Yunan in January 1967. The second batch of nearly 500 was led by Mowu Angami and Issac Swu in December 1967. Through the whole of 1968, small groups trekked back to India. Muivah stayed back and was taken to Beijing and later to Hanoi to learn the art of guerrilla tactics against modern weapons.⁷

The Mizo and Meiteis also received training from the Chinese. Mizo had sent three groups to China sometimes between May 1975 and early 1976. Laldenga also visited Beijing and met Chou-en Lai.

The Meitei insurgents under Bisheswar took an unconventional route via Nepal to reach Lhasa. The Meiteis were ideologically left-oriented and they were the ones to bring back urban Guerrilla warfare techniques to engage Indian troops in built up areas in Imphal.⁸

Sometime in the middle of 1969 a Sino-Pak strategy to train and coordinate the activities of North-East rebels was evolved. A guerrilla training centre was opened in East Pakistan with Chinese instructors to train Nagas, Mizos, Meiteis and Kukis. A small air strip was also built at a place 15 km south east of Rangamati.⁹

From late 1970s the Chinese support to North-East insurgents became restrained due to the emphasis on indoctrination and the ability to sustain a revolutionary struggle with resources at hand. The Chinese were also alarmed by the large scale surrenders by the Nagas in the 1970s. Based on the Governor's address during the Budget Session of Nagaland Assembly, 1049 Nagas had surrendered in 1969 alone.

Situation after the Emergence of Bangladesh

When Bangladesh was liberated from Pakistan, it was hoped that abetment of North-East insurgents would come to an end; but it was not to be. The emergence of Bangladesh resulted in the loss of rebel sanctuaries, but only temporarily. After the assassination of Sheikh Mujibur Rehman, Mizo rebels regained some of the lost ground in CHT, not as an associate of Chakma militants but as collaborators of the local authorities, helping them in settling Bengali Muslims in CHT and ensuring their own safe refuge in return.¹⁰

Besides Nagas and Mizos, the rebels of Tripura Volunteer Force (TVF) also found patronage in Bangladesh. The abetment of insurgency in Tripura by Bangladesh was partially a quid-pro-quo to the support India was extending to the Chakma Shanti Bahini. Mr Ashok Tandon, DG BSF, in his annual press conference on 27 November 1997 admitted that both the All Tripura Tiger Force (ATTF) and National Liberation Front of Tripura (NLFT) continue to get support from Bangladesh. In spite of Indian protests, Bangladesh failed to close down rebel camps in its territory.¹¹

A more detailed involvement of Bangladesh support to North-East insurgents was disclosed in a 10 page press note released on the occasion of BSF Raising Day in November 1995. The note disclosed that most insurgent outfits in the North-East were acquiring sophisticated weapons from Thailand with the active connivance of Bangladesh Intelligence. The note also gave specific details of the nexus between Pakistan's ISI and Bangladesh intelligence units. This was acknowledged by Mr. Indrajit Gupta, the former Home Minister, in reply to a starred question in Lok Sabha on 3 December 1996.¹²

The links of Manipur militants with East Pakistan/Bangladesh go back to decades. Reports indicate that training camps of Manipuri insurgents were located in the Srimangal, Bhanugach, and Dhamai areas in Bangladesh close to the border.¹³

The United Liberation Front of Assam (ULFA) first made contact with the Kachin Independence Army and Naga rebels in 1986. By end 1988, ULFA had established contact with Pakistani ISI operatives in Bangladesh. Later, ULFA established contact with Afghan Mujahideen in Pakistan. In March 1994 the Assam Assembly was informed that ULFA militants had received training with the help of Pakistan's ISI, many of them in Afghanistan. ULFA also established contact with Bangladesh field intelligence unit in Dhaka and was allowed to establish bases in Bangladesh. It is worth while recalling that the top leaders of ULFA including Paresh Barua, the C-in-C of its armed wing, are located in Bangladesh. Paresh Barua faction had training camps in Mymensingh district at Bhémugach, Nilfarman and Dhamai, all located in Maulvi Bazar area.¹⁴ However, after the victory of the Awami League under Sheikh Hasina in the 1995 elections, the Government of Bangladesh has decided to freeze all help to the North-East insurgents.

It has been reported in the media that following the crackdown by Bangladesh government, many ULFA camps have shifted from Bangladesh to Manas Reserve Forest in Assam and in the jungles of South Bhutan close to the Indo-Bhutan border.¹⁵ The situation could change dramatically against India in case an unfriendly and fundamentalist regime gains political power in Bangladesh.

Sanctuaries in Myanmar and Bhutan

The support given by China and Pakistan to North-East insurgents was a consequence of antagonistic relations between China and India and India and Pakistan. Unlike East Pakistan/Bangladesh, the sanctuaries of North-East insurgents in Myanmar were not the result of bilateral relations between India and Myanmar, which are cordial, but due to the inability of the Myanmar Government to effectively administer their hilly areas along India's border. Similar is the situation in respect of ULFA's camps in the jungles of Southern Bhutan close to the Assam border.¹⁶

Future Prospects

The linkages of Pakistan, China, Myanmar, Bangladesh and Bhutan with the North-East insurgents highlight the significance of bilateral relations of each of these countries with India. In recent years, for instance, the increasing co-operation between India and Myanmar, coupled with the success of SLORC government of Myanmar, to effectively administer the Western hilly parts of the country, have had adverse implications for the movements of North-East insurgents. The current policy of the Government of India is to treat Myanmar's problem with pro-democracy groups led by Aung San Suu Kyi as an internal problem and favours cooperative approach in dealing with infiltrations, gun running and checking the cross-border narcotics trade. But a section of influential Indian opinion is of the view that the drug trade is controlled by high ranking officers of the Myanmar Government and favours support to Aung San Suu Kyi. The Indian response to pro-democracy elements will have profound impact on the nature of co-operation between India and Myanmar to deal with insurgencies in the North-East.

Although with the improved relations between India and Bangladesh consequent to the formation of Sheikh Hasina's government in 1996 support to North-East insurgents has been frozen, security forces claim that enough has not been done to close down insurgent camps. The top leaders of ULFA continue to find shelter in Bangladesh. The linkage between ULFA and Bangladesh is quite paradoxical. The reason for ULFA's existence is the perceived threat to Assamese identity from unrestricted illegal migration from that country into Assam which the government of Bangladesh refuses even to acknowledge. Yet, ULFA leaders continue to operate from Bangladesh and some of their camps are still located in Bangladesh.

Another disturbing trend is the reported influx of weapons once owned by the Khmer Rouge cadres of Cambodia. The influx took place via the sea route. The weapons were first unloaded in small ports in Bangladesh and then smuggled into the North-East. Insurgents have also recently taken advantage of the free

availability of assorted weapons in the arms markets of Cambodia. The security forces have recently captured arms and ammunition from gun runners in Indian waters off Andaman and Nicobar Islands. It is reported that weapons were being shipped for North-East militants through Bangladesh ports.¹⁷

The relations between India and China have deteriorated after India carried out its nuclear tests in May 1998. Although the Chinese have stopped material support to North-East insurgents since 1978, it is poised for destabilising the North-East at the time of its choosing. An assessment of Chinese power potential, aims and interest in Asia raises speculation. In Tibet, it has improved its military potential. The presence of China in Myanmar has been growing. China has established a surveillance system on Myanmar's Coco Island, barely 40 km North of the northern tip of Andaman Islands. The ISI is quite active in Bangladesh. In the past, Chinese have collaborated with Pakistanis in erstwhile East Pakistan to train North-East insurgents. Sino-Pak interests converge in the North-East. As long as we are silent about Tibet, it is fine with China. The day the Indian government shows any inclination to speak for the Tibetan cause, the Chinese are poised to destabilise the North-East.

Notes

1. Urmila Phadnis, *Ethnicity and Nation Building in South Asia* (New Delhi : Sage Publications, 1989) p. 150.
2. Ibid p. 235, Also VIK Sareen, *India's North East in Flames*, (New Delhi : Vikas Publishers, 1980), pp 24 to 27. Sareen gives a lucid account of CIA activities in the North-East in early 1970s.
3. Press note issued by the Ministry of External Affairs on 3 Oct. 1968, quoted by Prakash Singh in his book *Nagaland*, p. 119.
4. The former Director, Intelligence Bureau, Shri BN Mullik recalls in his book *The Chinese Betrayal*, "The Nagas, however, luckily for us, did not create any trouble as long as our Army was engaged with the Chinese."
5. For a detailed account of Pakistan's support to Naga rebels, see Prakash Singh *Nagaland* (New Delhi : National Book Trust, India, 1972). Chapter-VII "Crescent & Dragon", pp. 118-145.

6. See Sanjoy Hazarika, *Strangers in the Mist* (Penguin Books, 1995), p. 117
7. Prakash Singh, *Nagaland* (New Delhi: National Book Trust, India, 1972).
8. For Naga, Mizo and Meitei insurgents' China connection, see Nirmal Nibedon, *North East India - The Ethnic Explosion* (New Delhi: Lancers, 1981), pp. 50-53 and 68.
9. See Prakash Singh, *Nagaland* (New Delhi: National Book Trust India, 1972), pp. 119-120.
10. *Times of India* (New Delhi), 1 Oct 1984, quoted by Urmila Phadnis in *Ethnicity and Nation Building in South Asia*, p. 235.
11. *The Hindustan Times* (New Delhi), "Dhaka sheltering NE Rebels : BSF DG", 29 November 1997.
12. *Times of India* (New Delhi), "Will Bangladesh now cut off Support to North East Insurgent", 19 December 1996.
13. MS Prabhakara, "The Foreign Hand-the ISI Nexus in NE India", *Frontline*, 11 February 1984.
14. See Sanjoy Hazarika, *Strangers in the Mist* (New Delhi : Penguin Books, 1995), p. 235.
15. See BG Verhgese, *India's NE Resurgent* (Delhi : Konark Publishers, 1996), pp. 59-60.
16. For a succinct analysis of external factors in the spread of insurgency see Urmila Phadnis, *Ethnicity and Nation Building in South Asia* (New Delh: Sage Publications, 1989).
17. *Times of India* (New Delhi), "NE Rebels getting weapons from Khmer Rouge, GOC", 24 July 1997.

Management of Stress in Counter – Insurgency Environment

MAJ GEN SAMAY RAM, UYSM, AVSM, VSM (RETD)

Introduction

Incidents of some army officers at the middle level committing suicide and cases of soldiers running amok shooting at their superiors and colleagues during the past two years are symptoms of a serious malady that appears to be plaguing the troops engaged in counter-insurgency operations in the Kashmir Valley. Though this is not an unusual phenomenon in an insurgency environment, the media seems to highlight such incidents with consequent adverse affect on the morale of the soldiers and the fine image of the Army. It is therefore a matter which the military leadership cannot ignore and must take remedial steps to arrest this trend. Since such incidents are a consequence of stress due to prolonged exposure to an insurgency environment, military leaders at various levels should understand the nature of this serious malady and create an environment which helps in the successful management of stress.

Aim

The article aims at highlighting the nature of stress, its causes and successful management in an insurgency environment.

Causes of Stress

It must be realised that prolonged exposure to an insurgency environment makes everyone, whether officers or soldiers, susceptible to stress because they not only live but also work at a faster pace to deal with uncertainty and change. From the

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military point of view, insurgency places a psychological weight on the military mind. Counter-insurgency operations, whether winning or losing, are uphill and heart breaking. The battlefield appears frozen in time. One is running all the time, yet it appears that one is standing at the same place. The levels of friction particularly of the mind can at times be intolerable. The operations are continuous; there are no pauses and no time-outs or half-times. Frustration mounts when there is no breakthrough while the expectations to perform and produce results are high. The soldiers are caught in a crossfire - moral vs immoral - and the dividing lines are blurred. In sum, insurgency imposes severe stress and strain on those who are engaged in it. Such feelings of stress and strain are generally described as :-

"Feeling of tenseness".

"Being in pressure situation".

"Being anxious or frustrated".

There is a need to understand the true nature of stress. Contrary to belief, stress is not pressure from outside situations commonly known as "stressors", but responding to situation constitutes stress resulting in emotions like anger, anxiety and frustration. Stress begins with being anxious because of the workload. This causes anxiety which leads to tension. This tension triggers nervous impulses that cause physical changes in the body. And when tension reaches a point that it affects the body, people are under stress.

Relating this to counter-insurgency operations, let us discuss the stressors in an insurgency environment and how the response to these stressors causes stress.

(a) As is well-known, units operating in an insurgency area are assigned the task of killing or apprehending maximum militants and recovering maximum weapons and other warlike stores. It is purely a numbers game which becomes the criteria for assessing the performance of units and individuals. Even unit citations are awarded on this basis. Obviously, there is a race or competition between units and formations. In this

game of one-upmanship, units with less scores to their credit led by ambitious commanding officers are driven hard resulting in an overall atmosphere of tension prevailing in the minds of the men. In units, where there is lack of cohesiveness, the results could be unpleasant. In the same context, when operations are launched based on hearsay or mere speculation, such operations, when prolonged and continuous without yielding results, also lead to frustration especially on account of irregular meal timings and deprivation of rest and sleep.

(b) The next factor relates to the response to the casualties suffered by troops during encounters with the militants. It is generally seen that while casualties inflicted on the militants are a cause for publication and celebrations, response to casualties of own troops is different. In fact, senior officers tend to add to the agony of a unit suffering casualties by instituting inquiries of such incidents. As it is, the soldier is already under tension and stress with regard to his own survival; inquiries of this nature further compound the problem.

(c) Another issue that disturbs the minds of the men and officers equally is the confusion over the cause for which they are fighting. While in conventional warfare it is easy to identify the enemy and the cause of defending the territorial integrity and sovereignty of the country, there is always a lurking doubt about the righteousness of the cause in an insurgency environment because the fight is with our own countrymen notwithstanding the fact that they have taken up arms against the legitimate government. This problem was apparent even when troops were operating as part of the IPKF in Sri Lanka.

(d) There is also the dilemma of using minimum force and shooting to prevent killing innocent people. While the soldiers are trained to shoot to kill, in counter-insurgency operations, they are expected to exercise restraint in the use of fire power and force, fighting with one hand tied behind the back. In most situations, therefore, the militants take advantage of such restraints exercised by troops leading to a conflict regarding the morality or the immorality of such a restraint.

(e) The soldier's mind is also under constant tension because of the qualitative edge that the militants have in weapons. While they are equipped with 7.62mm calibre weapons, the militants generally carry AK 47/5.56 mm rifles which are automatic with better rates of fire. This places our men in a disadvantageous position particularly when the encounters are sudden and at close ranges. Notwithstanding the few AK 47 rifles and bullet proof jackets issued to the units, the soldier feels that his superiors have failed to provide him with a level playing ground for conflict with the militants. He feels frustrated at this inadequacy and responds with anger when under pressure.

(f) Coupled with the above are the poor conditions of habitat under adverse weather conditions which result in a sense of frustration and anger with consequent disgust towards the superiors for their inability to provide proper living conditions. The frustration may either result in disobedience of orders or lead to tension.

Stress Management

The response to the factors discussed above manifests itself in the form of anger, frustration or tension with cumulative effect to stress leading to either suicides or soldiers running amok. While good discipline, training, sound administration and above all able leadership help the soldiers to negate the stress factors, any dilution in these virtues will adversely affect the motivation and morale of the soldiers. It is therefore expedient on all military leaders especially at the senior level to watch for the symptoms of stress developing in individuals and units and take remedial measures. Since it is a warfare where execution is decentralised, the impact or influence of senior commanders (Brigade commanders and above) is less as their orders take time to reach the subordinate commanders at the execution level. Therefore, the main burden of motivating the soldiers and sustaining their morale devolves on the Commanding Officer and his team of officers and JCOs. Some suggestions to improve troop morale are offered in subsequent paragraphs.

Leadership

Good leadership and training are the real antidote for combating stress in a counter-insurgency environment. Majority of the counter-insurgency operations are fought at platoon and company levels; hence platoon and company commanders must plan and execute missions by leading from the front and by setting personal example. The leaders above company commander level also need to be seen and their presence felt by rank and file. A soldier must see his commanders as often as possible. Commanding Officer should be seen once in two or three days if not daily and Brigade Commander once a week if not more often. Commanders must be able to plan ahead and defeat the designs of militants by being pro-active. The troops should develop confidence in the professional abilities of their commanders. When the troops move out for operations they must be convinced that the operations they are involved in have been planned and ordered after due deliberations and all assistance for their success provided. During execution of operations, the men must see their commanders facing the same hardship and danger to life as being faced by them. The living conditions of all ranks should be as similar as possible, (Rana Pratap and his family lived the same life as was led by his men). Such leadership, if practiced, would generate a state of motivation in troops which would negate all the stress of the battlefield.

Training

To kill is not the natural behaviour of a human being. To create the killing instinct in a soldier, he should be trained hard and realistically. Such training would inculcate body reaction and develop in him a second nature whereby he would do the unnatural act more as an auto-reaction leading to success. Success in combat would generate confidence and a sense of superiority which is essential to combat stress. If men are trained for all possible tasks and situations, the stress of battlefield would reduce to a negligible level.

Numbers Game

While the task assigned involves numbers game, there is no need to be obsessed with it and consequently drive the men to the stage of exhaustion or "burnout". Efforts should be made to create a good intelligence network at the tactical level and carry out operations based on specific information. This will yield good results as opposed to pursuing the course of searching for a needle in a haystack. Besides, it will save the troops.

Casualties

The troops are engaged in a live conflict. Therefore, if they inflict casualties on the militants, it is obvious that they too will suffer some casualties. While there should be concern for the safety of our men, excessive fear of losing them would make them defensive. Therefore, to imbibe an aggressive spirit in the men, they should be mentally prepared to sustain casualties.

Cause

There is no need to debate the wisdom (or lack of it) of the political leadership. For soldiers the task is quite clear. The militants who have taken up arms and recourse to violence against the legitimate government are anti-national and therefore need to be treated as adversaries. It must be emphasised that the elimination of the militants or their apprehension is in our interest.

Use of Minimum Force

Our troops must respond with force and manpower necessary to deal with the militants in a given situation without placing themselves at a disadvantage. The commander on the spot is the best judge to decide on the quantum of force and firepower to be used and the higher commanders must give due weightage to the wisdom of his judgement. They should also avoid instituting inquiries as such actions demoralise leaders at the junior levels inhibiting them in taking initiative and risks in future.

Weapons and Equipment

Recognising the fact that the militants are equipped with better small calibre weapons, the strength of our troops lies in better training to use weapons and also the ground effectively. This qualitative edge must be fully exploited to deter the militants engaging troops in combat.

Habitat

There is no excuse for poor habitat for troops. As Napoleon had said "Treat your men like horses. Drive them hard when they are out of barracks and groom them well when they are back in the stable". The men must be provided with adequate shelter, proper clothing and good food. There cannot be any compromise on sound administration.

Rest and Recreation Centres

This is a concept which was successfully tried out in Sri Lanka. A rest and recreation centre was established by the division where units came in rotation for two to three weeks. This period was devoted by men to maintain their weapons and equipment, for personal administration and recreation making them fresh for undertaking operations for another six months to one year.

Leave

There is a tendency to curb leave during counter-insurgency commitment. While restricting leave may be justified, denial of leave to deserving cases could only add to the frustration of the men. Therefore leave should be granted to troops when due.

Officer and Men Relationship

There is no substitute to the officers regularly interacting with their men. Provision of colour TVs and VCRs cannot be a substitute for this very important aspect. Officers must share the hardships and deprivation of their men. Senior officers should remain in constant touch with the units through regular visits to encourage

and resolve their problems. With such close interaction, the officers committing suicide and soliders running amok will reduce considerably.

Conclusion

It needs no emphasis that the nature of insurgency places a special demand on officers and men leading to tension and stress. The management of stress therefore becomes an important function of command in counter-insurgency operations.

ERRATA

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On page 173, para 2 of the article "India's Nuclear Leap Forward" by Prof. M Zuberi, the sentence "Carter convened only 100 meetings of the Council" should read "Carter convened only 10 meetings of the Council

Subcontinental Realities at the Turn of the Century

MAJ GEN VINOD SAIGHAL, VSM (RETD)

For several decades India has been tackling its security problems in an ad hoc manner. The country must now look ahead. The first line of India's defence is not at its borders but in the USA, Russia and Europe. The second line is in Central Asia, Iran, Indian Ocean Rim, Middle East and South East Asia. The implications of what is being said must be clearly understood. Most independent countries have long term aims; and strategies to match those aims. China is prepared to wait another fifty years (or so they say), if need be, to incorporate Taiwan.

India's natural frontier is at the Hindu Kush. The subcontinent of India begins at the Hindu Kush - historically, culturally and tectonically. Irrespective of what happened in the past, irrespective of the partition of India in 1947, and irrespective of the worldview of the global powers of today the global equipoise of the next millennium can only be attained through a stabilisation of the subcontinent - preferably along the northern perimeter, as defined earlier.

After fifty years as an independent country India should give up the "tentativeness" in its external dealings. Of late, the tentativeness could have crept in for any of the following reasons :-

- Fear of annoying the USA.
- Fear of annoying China.

Excerpted from the talk delivered by Maj Gen Vinod Saighal, VSM (Retd) at the USI, New Delhi on 25 March 1998.

Maj Gen Vinod Saighal retired from the Directorate General of Military Training, Army Headquarters.

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- Fear of annoying the Arab world, OIC and a host of others.
- Fear of blackmail of decision-makers by foreign powers and their agencies - especially those persons who have been compromised or those who have been the recipients of ill-gotten monies (stashed in foreign banks).
- Fear that exists amongst non-professionals or incompetent people holding sensitive jobs when confronted with professionals who have a lifetime of expertise in their respective fields behind them.
- Many similar fears that should remain unstated.

The fearful tabulation made above reflects the downside. It betokens the indecision that overtook the governing hierarchy, especially in the 1980s and the 1990s. There is, of course, a brighter side as well. Whatever the criticism levelled against India's foreign policy it has to be conceded that as things stand the country can still emerge as a strong nation in the coming years if good governance is restored and if the country's leadership can get its act together. This writer is of the view that the decision-making process will mature, sooner rather than later, and that a national consensus as to where India's real interests lie will emerge in the near future.

One of the difficulties faced by both insiders and outsiders who are frequently accused of treading on India's toes is in failing to discern as to what really constitutes the country's turf. There is a need to lay down a set of parameters that might help in sending a clear message to the world at large as to where India wishes to draw the line beyond which it would not tolerate trespass or interference. One hesitates to use the term "Lakshman Rekha" as that might connote a stance far more rigid than that intended. A clear definition along the lines being indicated would allow India's neighbours and well wishers to take note and mesh in. Should the others, who have been in the forefront of actions to artificially limit India's natural growth, see things India's way, well and good. India does not wish to have an adversarial relationship with anybody. It wishes all countries well. However, it will not allow outside

interference in its legitimate spheres of growth and development. It will have been noted that once again the phrase chosen has been 'spheres of growth and development'. The phrase 'sphere of interest' has been deliberately avoided on account of the threatening military connotation; largely conferred upon it due to its usage by (dominant) groups in pursuit of unrestrained global power.

Cardinal Principles of India's (Suggested) Foreign Policy for the Opening Decades of the 21st Century
(Tenet of Faith as well as a Declaration of Intent)

1. Dynamic pursuit of general disarmament and complete abolition of nuclear weapons.
2. Concomitantly, India will remain in the forefront for eco-revival of the subcontinent and the planet.
3. No foreclosing of any option for future generations of Indians unless the option being curtailed, or closed, is part of globally enforceable, non-discriminatory global protocols.
4. Abiding faith in the need for strengthening the United Nations system along with democratisation of the UN.
5. India should give up "canvassing" for a permanent UN Security Council seat. This body is in need of major systemic reforms. Thereafter, India will "automatically" get its due in a more rational global governance order.
6. India is against nobody, be they global powers, emergent super powers or anybody else. However, it will, hereafter, exercise all rights and options-in conformity with globally acceptable limits on such rights-to pursue its national interests as deemed fit. National interest is defined as the interest of the country as perceived by the people of India.
7. India will view any de-stabilisation attempts on the subcontinent by outside powers as hostile acts and react accordingly-commensurate with its capabilities and in the manner best suited to counter such threats. For the purpose of this enunciation the subcontinent of India - both tectonically (geographically) and historically-comprises all lands South of the Hindu Kush. (Refer to map at Appendix A. The map has

been taken from a French publication and relates to the subcontinent many centuries before the advent of the Buddha. The same configuration obtained up to (perhaps) the Sixth Century A.D.; and then again at the peak of Aurangzeb's empire except in the South of India. The claim of the British that they were the first to unite India is untenable).

8. Any attempt by foreign powers to establish military bases in the subcontinent as well as the Bay of Bengal will be viewed as an act of (potential) aggression calling for a full-scale review of India's options to deal with the threat.
9. After fifty years of intermittent wars and foreign-inspired terrorist activities, India considers the Kashmir question as finally closed. Hereafter, the only basis for talks will be the "peaceful" merger of POK and the so-called Northern Areas into the State of Jammu and Kashmir.
10. From 1 January 2000, India will consider the threat of use of nuclear weapons by any state against another state as a form of nuclear terrorism at par with nuclear terrorism by non-state factors. Following the declaration India will persuade the UN General Assembly and other groupings to make similar declarations.

Subcontinental Perspectives

No political leader, defence planner or diplomat can afford to ignore the statements made by persons who are generally able to influence the US establishment. These are being reproduced in the chilling terms used by some of them while defining the US objectives in the developing world.

"To prevent the development by non-Western societies of military capabilities that could threaten Western interests". (A respected US intellectual).

"In every situation that I have seen so far, nuclear weapons would not be required for response. That is, we could have a devastating response without the use of nuclear weapons, but we would not forswear that possibility". (Statement made in April 1997 by former Defence Secretary, Perry).

Similar statements have been made from time to time by military and Intelligence heads before Congressional and other committees. All developing countries need to take note of these pronouncements. The threat is not being taken seriously enough. Instead, one is confronted with the phenomenon of defence hierarchies rushing into military-to-military cooperation on their own soil and on their own continental shelves. It is worth reading the text of the talk delivered by the US Secretary of Defence William S. Cohen, "Continuity, Change and Commitment: America's Asia-Pacific Security Strategy" at the Institute of Defence and Strategic Studies, Singapore on 15 January 1998. That the US is committed to a 'forward' presence in the region and military-to-military cooperation provides 'access' becomes apparent from the talk.

The next set of extracts reproduced below have been selected as a backdrop for many of the formulations that are made subsequently in this paper.

- *"The discrediting of socialism, epitomised in the collapse of the Soviet Union, is something the world will regret in time, now that market forces are unfettered and dominant and greed has been sanctioned".* (One of the Members of the Canberra Commission in a private communication to this writer).
- *"There will be no big wars in the future; but a thousand deadly (small) tribal conflicts shaping up all over the world".* (Jacques-Yves Cousteau in a fax sent shortly before his demise).

One has to be conscious of the fact that whether one is for it or against, the agenda for global debates, whatever their nature, is set in the West. Therefore, unless the focus and locus of these debates can be changed so-called independent decision-making will remain a chimera. In the short review that follows, an attempt has been made to look at the geopolitical spectrum of the region around India with such a perspective.

Pakistan

Throughout the second half of the Twentieth Century, Indian leaders, irrespective of their hue or persuasion, kept saying that

the breakup of West Pakistan was not in India's interest. Most genuinely believed in what they said. Still others expressed this view in public because it was fashionable to do so. It made the speaker appear statesmanlike. Governments of India, well-wishers of Pakistan in India and the majority of the intellectuals working for a genuine rapprochement with Pakistan have failed in their endeavour. The military defeats have not worked either. Primarily because they were called off inopportunately when Indian forces were poised to gain major advantages. After the conflicts too many unilateral concessions were made in the hope that these might make the other side more amenable to reason.

The past must now remain a closed chapter. India has to bring into play an entire range of options - "excluding war" to effectively demolish Pakistan's ability to create further mischief in India or, for that matter, 'anywhere' in the subcontinent. Several pathways suggest themselves. These can be summarised as follows :-

- Detaching the Pakistani hawks (generally known as the Punjabi elite comprising the military, civil services and the upper classes) from the ordinary people and the other provinces.
- Fully exploiting the vulnerability of Province of West Punjab.
- Direct economic links (pipelines, railroads etc.) between Iran and India via the provinces of Baluchistan and Sind.

It needs to be reiterated that India does not consider (counter) terrorism or war with Pakistan as an option to be exercised as the other options just spelled out could demolish the war-mongers in that country far more effectively. However, Pakistan should never be allowed to harbour any doubts that India would deal very decisively with any misadventure by that country.

The map at Appendix B highlights the small size of the Pakistan province of West Punjab. In pursuance of the interest of the dominant group (the Punjabi elite) the backwardness of the other (larger) provinces was perpetuated. Consequently, from the

very beginning i.e. in the nineteen fifties and the sixties, well before the advent of missiles, heavy industries - including the military-industrial infrastructure - was concentrated in Punjab, in a handful of core areas. Therefore, in an all-out conflict, it would be very easy for India to demolish the Punjabi heartland with a few hundred short range *Prithvi* missiles without resorting to the use of tanks or aircraft.

It was stated, however, at the very outset (in this and many earlier articles by the writer) that war is not an option that India should ever exercise unless the adversary forces one upon this country. In that eventuality, India could even assure the other provinces of Pakistan that it would not like to inflict damage upon them. The people of India and Pakistan are ready for a rapprochement. At the very least they would like the SAARC common market to develop fast so that economic prosperity comes to the subcontinent. This development is retarded solely by a few thousand wielders of power in the Punjabi heartland - as well as their foreign backers.

The accolades that the Pakistan Army Chief received in the USA during his recent visit should be viewed more gravely by the Prime Minister of Pakistan than India. In this country it has been known for several years - or should have been known - that the Pakistan Army represents the American bridgehead on the subcontinent. It is the instrument with which the USA hopes to keep the SAARC region divided in the next century. The pattern should now be familiar to most people. In the early 1980s, after the loss of Iran to the Khomeini revolution, Saddam Hussein was "encouraged" by the Americans to attack Iran. The weapons of mass destruction were supplied to Iraq mainly by USA and UK. The suppliers would have known that they would be used on the Iranians. They 'were' used on the Iranians; and the Kurds. Although both Iran and Iraq were ready to call off the war much earlier, the Western military-industrial complex saw to it that it continued for nearly a decade. The USA has a similar plan for Pakistan and India. The governments and peoples of both countries must take heed.

Going just one step further, it should by now have become clear to Indian defence planners that the US does not really want China to cut off the supply of nuclear material and missiles to Pakistan. Their protestations, notwithstanding, the US military establishment will tacitly encourage Pakistan to use them against India, Pakistan's principal backers are hell-bent upon fuelling a mutually debilitating arms race on the subcontinent for the reasons stated earlier and for the more important reason that India be made to concentrate on the lower levels of defence technologies.

US interest in curbing technology transfers of this nature is limited to Iran. Should China curtail supplies to Iran the US will have no further interest in the matter.

China

China has persistently, and deliberately, been increasing Pakistan's capability to inflict damage on India. The policy which has been vigorously pursued for well over two decades does not spring from any love for that country or its people. It is motivated solely by a desire to encourage a mutually destructive conflict between Pakistan and India which, it turn, could weaken both countries sufficiently for China to be the dominant player in Asia in the next century. Should the military in Pakistan remain in the ascendant, it will also prevent or retard the growth of the SAARC common market - a development viewed with dismay by Washington as well as Beijing.

What is far more worrisome is that defence planners in India have invariably underplayed the Chinese threat and overplayed the Pakistan conventional military threat. Even if a grand reversal takes place now - after a full-scale strategic review - it will take the armed forces at least one or two decades to simply undo the effect of wrong priorities of the previous decades.

What is true of the thinking of defence planners applies equally to the external affairs community. China has, no doubt, taken a neutral stand on Kashmir in recent years. This shift was necessitated by China's internal re-appraisals, based on its own

security dilemmas, and the post-Cold War global power plays. It had little to do with Indian sensibilities. A beleaguered Indian foreign ministry indulged in patchwork remedies in the face of rapidly changing governments and the incertitude at the political apex. It was felt that appeasement of China was the best policy. Gratitude for China's shift on Kashmir made the Government of India blind to the extremely dangerous moves made covertly by China to comprehensively undermine India in the next century.

Therefore, India's China policy while stressing the need for normalisation of relations with that country should comprise the following elements :-

- Firmly announcing to China and the world that transfer, sale or technological assistance to Pakistan to create an offensive capability against India, especially in the nuclear weapons and the missiles fields, is viewed by India as an unfriendly act.
- India should not remain a passive spectator in the face of attempts by China to establish any form of military presence in the Bay of Bengal or elsewhere in the subcontinent.
- Speeding up a retaliatory capability.

The world has started realising that water shortages might become one of the greatest concerns of the next century. In this regard what if China were to decide to modify the course of the mighty Brahmaputra with nuclear demolitions. It is known as to what extent it would be geologically feasible. But should it be effected, even partially, it would sound the death-knell for the few hundred million people in the North-East and Bangladesh. These and a few more issues of an allied nature, especially those relating to demographic transitions in South Asian societies, will concern the region far more closely than the security concerns highlighted by some of the most eminent persons connected with national security.

Before closing the short resume on China - and regardless of the measures that India must take, in the face of the military growth of its giant neighbour, to ensure that the security of the

coming generations in the subcontinent is not compromised - it should nevertheless be the constant endeavour of Indian statesmen to bring home to their Chinese counterparts that India regards China as an essential pivot for the global equipoise of the next century. Hence the quest for a harmonious relationship with China should continue to be an essential element of India's foreign policy.

Russia

No matter how one looks at the international power equations of the next century, one thing that stands out clearly is that under almost every conceivable scenario there does not appear to be a likelihood of a clash of interest between Russia and India. In fact, what does stand out from any review of this nature is the growing commonality of interests between the two countries. Therefore, in as far as it relates to Russia, India should continue to strengthen the good relations established over the years with that country. In concrete terms it calls for a long-term accord with Russia in the fields of science and technology, space ventures, and many other related fields.

The attempts by the US to establish a military presence in Central Asia would result in greater instability in that region in the next century. While economic penetration by US and Western multinationals can be viewed as an extension of globalisation, military intrusions in any form would have to be viewed with dismay by Russia, China, Iran and the subcontinent of India (excluding for the time being Pakistan). These nations would be well advised to act in concert now, before the presence is enhanced, to exclude the possibility of greater militarisation of Central Asia before the situation gets out of hand.

Iran

There should be no "tentativeness" in extending full-scale economic co-operation with Iran. India has long-standing historical and cultural ties with Iran. This country must not allow others to lecture India as to who it should be friendly with and the extent of that friendliness; especially in its own backyard. Should the

Governments of India and Iran decide to set up a joint commission for full exploitation of the hydro-carbon reserves in Central Asia they would be able to arrive at mutually beneficial solutions which could turn out to be far more attractive than those being planned by the Western cartels. All of them ultimately need to sell their products in the enormous market of India. At a later stage even Iraq could be brought into the fold.

Afghanistan

Without breaking off relations with the Northern Alliance, India must open a dialogue with the Taliban in Afghanistan. Even if the Northern Alliance maintains its tenuous unity it is unlikely that they would be in a position to retake Kabul or the greater part of Afghanistan under Taliban control as long as the Taliban have the backing of USA, Pakistan and Saudi Arabia. Should at any stage, in the near future, good relations get established between the Taliban in Afghanistan and the Government of India, Pakistan might start feeling decidedly uncomfortable for more reasons than one. It needs to be reiterated that establishing good relations with the Taliban does not mean that India would abandon its support to the Northern Alliance; provided, of course, that the Alliance continues to hold. It also needs to be added that it is in the greater interest of the Taliban to maintain good relations with India. When they come around to this point of view India should be prepared to listen; and to act.

Japan

When one looks at the geopolitical horizon of the coming decades it becomes increasingly clear that India and Japan have far more in common than is currently perceived to be the case, either in Japan or in India. The Japanese dependence on the USA might have served the country's interest admirably in the later half of the Twentieth Century. It is hardly likely to be the case in the Twenty-First Century when Japan starts looking afresh at its global options without the dead-weight of the US-Japan Defence Treaty. After the end of the Cold War the Soviet Communist threat ceased abruptly. Instead of comprehensively reviewing its geo-strategic

options the Japanese establishment was railroaded into another *cul de sac*. The emerging threat from China was played up to a degree far greater than the ground reality necessitated. The Japanese public was not given a chance to debate the issue. Had an expert re-appraisal been carried out it would have brought out quite clearly that the Chinese military, even perhaps after another fifty years, would be incapable of mounting a threat to mainland Japan of the same magnitude as the Soviets in an earlier era. The dispute over the Spratly Islands is a separate issue.

It is not proposed to dwell at length on this vital issue. It would be sufficient to state that, de-linked from the American strategic intent in the Asia pacific region, there could be complete harmonisation of Japanese and Indian perceptions for ensuring stability in South East Asia.

India and Japan, possibly linked to Taiwan and South East Asia, have a big stake in developing greater economic co-operation. The co-operation should extend to jointly developing space and ocean technologies of the next century. The Japanese, because of their economic prosperity, have been co-opted into the Western alliance, in more ways than one. They will realise in the Twenty-First Century that they have more in common with South East Asia and the Indian peninsula than with the West.

Taiwan

It is felt that India should :

- Consider enhancing economic and cultural relations with Taiwan to a level which obtains with some of its closest trading partners.
- Establish technological co-operation with that country in the aerospace sector. At a later stage, technology transfer for manufacture of missiles of less than 1500km range, under license, should be considered. (Setting up joint defence production ventures with Vietnam falls in the same category).
- Greater co-operation between the navies of the two countries.

- Any other co-operation that could strengthen relations between the two countries.

The world at large accepts that at some future date Taiwan could become a part of the PRC. However, there is a near global consensus that the merger, when it takes place, would have to be through peaceful means. Since the people of Taiwan do not appear to wish to become a part of China in the foreseeable future, treating Taiwan as an outcast for decades on end simply because China can rattle its military sabre cannot be a proposition for stability in the next century.

South East Asian Meltdown

The devastating effect of the crash of many South East Asian economies, including that of South Korea, has not yet been fully appreciated by most of the developing countries - as a collective body. The reason being that the global media is in the hands of the developed world. First-rate analyses made in India by economic experts will get infinitely less coverage worldwide than third-rate analyses by their counterparts in the developed world and the IMF and World Bank. There are lessons to be drawn from the traumatising of the ordinary people in Indonesia, Thailand, Malaysia and elsewhere; lessons which will be lost on India and the developing world unless they get their act together. Before going further in this regard it may be worth pausing to look at some of the comments that have been made recently :-

- There is a feeling that basically the rich have caused this problem and they are getting bailed out while the poor are being shafted - (Walden Bello. A social analyst at Bangkok's Chulalongkorn University as reported in *Asia Week*, 6 March 1998).
- "A visceral engulfing fear" - Alan Greenspan, Chairman of the Federal Reserve.
- Messrs Edward Mason and Robert Asher, the historians of the World Bank cautioned the Bank against pursuing "ideology-based conditionalities".

The penetrating remarks are not far off the mark. IMF and other aid packages will merely bail out the rich. The rich bankers, that is, in the developing world who not only made imprudent loans for unviable schemes contrary to good banking norms but actually induced the privileged elites to mortgage the future of their countries. The western banks have perfected the system. IMF packages are primarily intended to ensure that western banks do not collapse under the weight of unsecured loans that turn sour. The economy of the South East Asian countries 'will' be revived in due course. The ownership pattern, however, of several national assets would have changed. It was the case in Argentina and Mexico. It will be the case in South East Asia.

The following measures can help in limiting future damage :-

- Full-scale, independent reviews by expert panels nominated by the G-15 to study the global pattern of destruction of Third World economic independence engineered in the West Russia, having been a victim of similar activities would also benefit from the exercise. The G-15 panel should finalise its report within 12 months and thereafter present it at a G-15 heads of state meeting. The panel should repeat the presentation before public bodies in each of the G-15 nations and other nations who might show interest.
- Similar exercise to be undertaken by SAARC; over and above the exercise undertaken by the G-15 countries.
- The South East Asian countries (South Korea is excluded) should declare a moratorium on the purchase of prohibitively expensive offensive weapons systems like aircraft and tanks for twenty years till their economies stabilise fully. Meanwhile, China, Japan and India should collectively guarantee the maintenance of territorial *status quo* of the countries of the region. (As far as possible Asian security should be secured in Asia).

India need not take fright at what has happened in South East Asia to backtrack on its globalisation. The major lesson that

has emerged is that India should not allow itself to be 'pushed' in any direction by the western powers and their vast army of supporters in this country. Economic liberalisation will become necessary after careful evaluation of what is in the best interest of the country. The other important lesson which the new government of the country must learn is that "crony capitalism" needs to be completely wiped out. This can be implemented through guaranteeing the independence and competence of regulatory mechanisms as well as through de-centralisation and transparency. Heads of financial institutions, public sector banks and enterprises should be nominated by independently constituted panels. The procedure should be transparent.

India's development has been artificially retarded; not by lack of resources but by the siphoning-off of resources. The fodder, telecom and fertilizer scams and the Bofors and HDW rake-offs were not the only cases. There would have been several hundred such cases that were not investigated or exposed. Collectively they represent astronomical sums of money which could have more than doubled the "real" outlays for the Five Year Plans of the country. India is not a poor country. It still has enormous resources which can be effectively mobilised. Should the bureaucracy be revitalised and good governance restored, India can make spectacular progress in the years ahead. The world needs the Indian markets as much as India needs foreign investment. It is a sobering thought to remember that currently the telephone density of India is 2 as compared to a telephone density of 80 in the USA. Even if the telephone density rises to just 10, the number of telephones required would exceed all the telephones currently operating in the entire Western world.

INDIA'S DEFENSIVE POSTURE FOR THE OPENING DECADES OF THE TWENTY-FIRST CENTURY

The utilisation of the defence budget by the MOD and the three Services has hardly been geared to the optimum utilisation of resources in the national interest, as opposed to the narrow service interests. The problem has been compounded by unwarranted interference by bureaucrats and politicians, often

swaying to the tune of the outsiders. There were several reasons for this state of affairs. These have been cogently articulated often enough by any number of respected professionals across the national mainstream for almost fifty years. They have had no effect on the bureaucracy of the country which can be squarely blamed for India's lack of preparedness in several areas. There have been some outstanding bureaucrats. In as far as it relates to defence they were the exception rather than the rule.

While the new government ponders over the composition of the National Security Council - and before the NSC is able to start making independent formulations for decision-makers at the political apex - it would be prudent to immediately set up a National Defence Review Panel. This Panel must not comprise of solely retired Chiefs, Cabinet Secretaries, Defence Secretaries and the like. They all had their chance. They have had their say. It is time to induct fresh blood and experts from areas not normally associated with such reviews in India. The Panel should make its recommendations within 12 months; to the Government as well as to the Parliamentary Committees associated with defence. After that the Panel should be wound up. Its recommendations should be implemented within a time bound period, regardless of bureaucratic opposition. Meanwhile, an interim National Security Council could be set up. This body too would be wound up once the recommendations of the National Defence Review Panel are implemented. These recommendations would include the organisation and structure of the National Security Council. Should the NSC turn out to be merely a repeat of past exercises i.e. the same set of people sitting in a different room, donning fresh hats and calling themselves the NSC, it would turn out to be an exercise in futility.

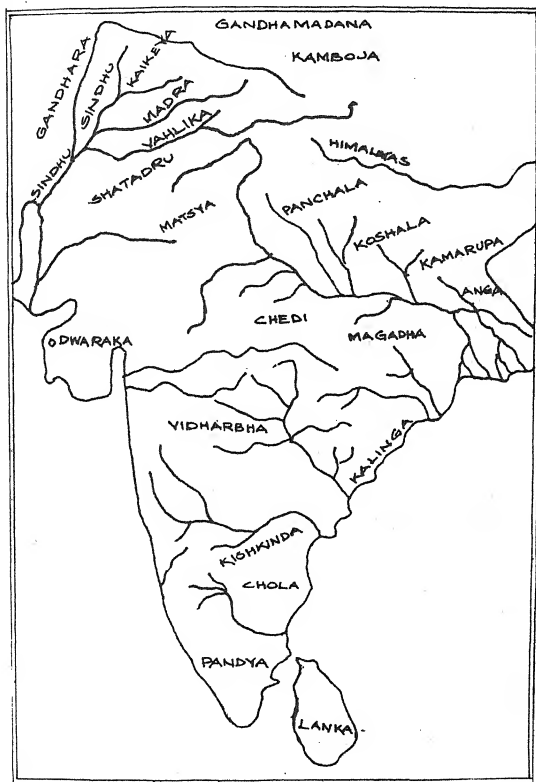
The views of this writer on the restructuring of the armed forces were given out in June last year (*USI Journal*, July-September 1997, Vol CXXVII, No. 529). It needs to be reiterated here that at the very minimum the following capabilities should inhere for the defence of the Indian subcontinent :-

- The Indian Navy to have a meaningful naval capability

and presence in the Indian Ocean region. (India does not have the desire to extend this capability beyond the Indian Ocean Rim. The building up of this capability is primarily a "defensive" measure to counter threats to the subcontinent of India in the next century. India does not wish to get into a confrontation with any power).

- The Indian Navy to develop a full-scale capability to deal with outside interference - to regional stability as well as the marine eco-systems in the Bay of Bengal and in India's EEZ. (In the years ahead protection of the marine environment will become far more important than the present inter-state confrontations).
- The Indian Coast Guards to be strengthened in a similar manner.
- Projection radii (especially seawards) for the Integrated Missile Defence Forces (IMDF) by the year 2010 to be spelled out by the National Defence Review Panel.
- Projection radii for IMDF - to cover up to the IOR - by 2015.
- Projection radii for IMDF beyond 2015 depending upon the global environment.
- Maintaining the highest standard of fighting potential and readiness of the Indian Army in the changed geo-strategic environment in the North and North East of India.
- Developing and maintaining a capability for fighting through a "high tech paralysis" in any future conflict. No developing country should ever allow a repeat of what happened in the Gulf War.
- Developing a first-rate space surveillance capability.

Appendix A





Not to Scale

Kosovo - Will NATO Intervene to Break Up Serbia

VICE ADMIRAL S C CHOPRA, PVSM, AVSM, NM (RETD)

The turbulent under-belly of Europe is in turmoil again. The unfortunate balkanisation of the erstwhile Socialist Federal Republic of Yugoslavia (SFRY) in 1991 into independent states of Slovenia, Croatia, Macedonia and Bosnia-Herzegovina after bitter infighting left only Serbia and Montenegro to form the rump state of the Federal Republic of Yugoslavia (FRY). It is indeed a pity that Tito's Yugoslavia went down the tube without a serious comment in our media, despite the fact that he was one of our staunchest supporters in the hey-days of the Non Aligned Movement (NAM) which had on many occasions taken a principled stand on non-interference in the internal affairs of sovereign states.

Current Situation

Troubled times have arisen again in FRY, this time in the autonomous province of Kosovo and Metohija in Serbia around which the airborne gladiators from NATO countries have already carried out threatening air strike exercises, warning Belgrade to withdraw its police forces and army units from Kosovo. Although an integral part of its national territory, Serbia is being accused of indulging in ethnic cleansing of Albanian people in Kosovo. Anyone who watches the BBC or CNN would know that they spend nearly 20 per cent of their newstime showing the same footage over and over again claiming large scale movement of refugees from Kosovo to neighbouring Albania. These premier news agencies and their glamorous newscasters did not act in a similar manner when, for instance, Croatia turfed out nearly 600,000 Serbs from their newly independent territory and later during the battle for Sarajevo where Bosnian Muslims fought Serbians for years in the hope of getting the international community to intervene on their behalf. A repeat

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of the same story is being enacted in Kosovo where Ibrahim Rugova, the leader of the moderate Democratic League, has been totally sidelined by the militant Kosovo Liberation Army (KLA), trained and armed in neighbouring Albania to seek secession of Kosovo from Serbia. The pernicious influence of these news agencies during the battle for Sarajevo has been brought out by a Canadian, Maj Gen Mackenzie, in his book 'Peacekeeper'. He points out how they put the total blame for the civil war on Bosnian Serbs when the truth on the ground was quite the opposite. He ought to know, because he was there right through the first year of battle as the Chief-of-Staff to Lt Gen Satish Nambiar, the Indian Commander of the UN Protection Force (UNPROFOR) who tried very hard to bring peace to Sarajevo.

As fresh battle lines are being drawn in Kosovo, and NATO intervention a possibility – spearheaded initially by show of force but later tempered down to negotiations because Russia took a principled stand against any interference by NATO forces - it has become necessary for the non-aligned international community also to display similar concern and stand up for its well publicised principle of non-interference in the affairs of nation states by outside agencies. Whilst the American negotiator Mr Richard Holbrooke is back in FRY to seek a political solution for the Kosovo problem in an effort to pull it back from the developing scenario of another bloodbath, given his known dislike of President Milosevic and Serbs in general there is only a slim chance of an early solution emerging. Indeed there is every chance that it might trigger an international fallout with Russia already warning the West to keep their hands off Kosovo. The only glimmer of hope so far is President Milosevic's willingness to work for a political solution to the problem through direct talks with Kosovars without any preconditions or foreign intervention. He has pointed out that "peaceful, humane, just, and lasting solutions to the problems in Kosovo can be found" in the spirit of openness. The Kosovo Liberation Army on the other hand is keen to internationalise the issue by refusing to sit either with Ibrahim Rugova or President Milosevic, until and unless the FRY security apparatus is completely withdrawn from Kosovo.

Kosovo - History

A brief survey of the history of Kosovo is necessary to understand the dimensions of the problem. Serbs belong to the South Slav group of Slavonic peoples settled in the Balkans in the 6th Century AD. Covering an area of 50,000 square miles, Serbia was the predominant location of their settlement. It remained thereafter the source from where Slavs populated the surrounding countryside over the next six centuries, though not always controlling it. Western areas settled by Slavs were captured by the Austro-Hungarian Empire, whilst Italian influence prevailed along the Dalmatian coast. Historically, what is of greater importance is that it was at Kosovo that Serbian Prince Lazar was defeated by Sultan Murad I of the Ottoman Empire on 15 June 1389 resulting in Islam's final entry into Serbia. Though the Sultan was killed in the battle, his army's last minute victory resulted in the final annexation of Bosnia and parts of Serbia to the Ottoman Empire. Serbian interests suffered a great setback and most of its lands were taken over. Some of the most revered Churches of the Orthodox Christian faith exist in Kosovo since the early times. The territory, thus, is of importance to the Serbs, much the same as the Wailing Wall is to the Jews. It was only four and a half centuries later in 1833 that Serbia was able to re-establish full autonomy within the Ottoman Empire and finally declared herself independent of Ottoman rule in 1878. In 1912, Serbia and Montenegro along with Greece and Bulgaria delivered the final blow to the Ottoman Empire and the "Sick man of Europe" was finally ousted from the continent much to the surprise of the rest of the European nations. After World War I (1914-1918) Serbia and Montenegro had unified with the rest of the Serbs, Croats, and Slovenes living in Bosnia, Slovenia and Croatia (which had been liberated from the Austro-Hungarian Empire) and thus created the first Yugoslav State. Serbia became the leading republic of the Yugoslav federation which came about as a result of World War I and was recognised as a sovereign independent state by the Berlin Conference.

Serbia included the two provinces of Kosovo and Metohija (4000 sq. miles) in the South and Vojvodina (8000 sq. miles) in the North. Since the mid-20th Century the Kosovar population has dramatically increased due to a higher birthrate and steady

infiltration of people from Albania seeking greener pastures away from their own rigid state apparatus. It is now fashionable to refer to Kosmets as Albanians by the West, though to Serbia they will always remain Kosmets or Kosovars. It is necessary to record, however, that the Serbian population in Kosovo has also correspondingly decreased due to the growing pressure of the Albanian population and the inbuilt hostility between the two communities. Kosovo area is blessed with large mineral deposits, especially coal which is still the primary source of energy in Serbia.

Vojvodina is the other autonomous province in Serbia with 55 per cent Serbs, 17 per cent Hungarians, 5 per cent Croats and the rest consisting of Slovaks, Ukrainians, Rumanians, Romanis etc. Its fertile plains provide one-half of the country's grain and three-fourth of beet sugar. Primarily a community of farmers, they are not likely to demand independence from Serbia unless help given to Kosmets in Kosovo by outside agencies also triggers off new aspirations here. Both Kosovo and Vojvodina have a Constitution of their own, which gives them cultural and territorial autonomy but without the attributes of statehood as was enjoyed by other units of erstwhile Yugoslavia like Slovenia, Croatia, Macedonia etc. The autonomous provinces are authorised to deal with local problems related to economic development, finance, education, spread of information through Television and radio, use of their mother tongues, medical care and general welfare of the people etc. Basically Serbia only requires that, in accordance with the Copenhagen document of the OSCE (Organisation for Security and Co-operation in Europe), its national minorities must observe the obligation of loyalty towards the parent state whose citizens they are.

Aspirations of Kosovars

The long political agitation in Kosovo led by the moderate leader of the Democratic League, Ibrahim Rugova, for more autonomy today stands totally stalemated by the sharp increase in the terrorist activities of the Kosovo Liberation Army, which openly demands outright separation from Serbia. If their demand is pushed through by NATO's threat to use force against the Serbian security network, it won't be too long before the same

story would have to be repeated in Macedonia and Greece which also have sizeable Albanian populations within their borders. It is a great pity that the killing of policemen and soldiers in Kosovo is deliberately underplayed by news agencies whilst the death of heavily armed Albanian terrorists becomes a serious infringement of human rights and adequate reason for NATO council to meet and plan military action against a duly constituted national authority. The ongoing one-sided propaganda against FRY by the Western news agencies is unlikely to make the task of peacemakers any easier. Most of them already have pre-conceived notions of Serbs being the guilty party and others are still trying to settle scores with them for what happened as long back as World War II.

Albanian Ambitions and Serbian Dilemma

After the collapse of communism both in the former Yugoslavia and Albania, the Kosovars have fallen under the spell of their own grandiose dreams of unifying all Albanians from Greece, Macedonia, Albania and Serbia under a single flag and country. There is little doubt that there is a growing swirl of activity to undo the so-called injustices of the past which allegedly left "one half of the Albanian ethnic people and territories" outside the borders of Albania. It also takes very little imagination to figure out who funds such terrorist activities when Muslim people are seemingly discriminated against by Christian governments. For over 30 years religion was totally banished from the erstwhile state of Albania. Now there is a sudden surge of Islamic revival and all its followers deem it necessary to bring under its umbrella all those who professed this religion in the days gone by. Serbs have been unable to do anything at the political level to prevent the growth of Islamic militancy in Kosovo, supported as they are by the overall financial clout of the oil-rich Islamic countries. Even BBC and CNN have not been able to hide the vast quantities of sophisticated arms which are flowing into Kosovo from neighbouring Albania.

The story of Bosnia-Herzegovina is likely to repeat itself all over again, where the Western nations pretended for four years that Bosnians were only the victims of Serbian atrocities and not active participants in a civil war which followed the ill-advised and hasty declaration of independence from Yugoslavia by President

Izetbekovic without even consulting its Serbian citizens. Lest we forget, in Bosnia Serbs formed 35 per cent of the population against 43 per cent of Bosnian Muslims. This ethnic profile was closely reflected during the free elections held in 1990, but the European Union went ahead anyway and recognised Bosnia as an independent state despite known opposition from its Serbian population. Had this fact been taken into account a Dayton type accord, which in real terms amounted to the partition of the republic, may have emerged much earlier than it did. Sadly the Western nations condoned the haste with which the Bosnian President declared independence but never forgave the Serbs for the civil war and bloodshed that followed, branding them as the 'butchers of Bosnia'. Why was it that Serbian terrorist outfits in Bosnia were not acceptable to NATO but Kosovo National Army in Serbia is being treated with kid-gloves. It is a well known fact that over 90,000 Kosovars live in and around Belgrade, way North of Kosovo, and any arbitrary settlement through show of arms in Kosovo will affect their future adversely.

Self-Determination and Human Rights

The continuing lesson to be learnt from the ongoing tragedy in Yugoslavia is that the principle of self-determination by peoples is a dangerous foundation for international relations, and more so if applied selectively. Whilst we may contend that all men are born equal and therefore have equal rights, such presupposition in regard to nations is completely unjustified. Different nations have different implications for individuals within their territories who cannot always be treated equally for this purpose. It has been said that multi-lingual and multi-ethnic societies in erstwhile Yugoslavia and USSR were artificial creations of communism and could only be kept together by force under an authoritarian regime. Historically however the multi-ethnic society in Yugoslavia came about well before the advent of communism. It was on 20 July 1917 that an all parties conference in Corfu, where the exiled government under King Alexander functioned during the First World War, signed the Corfu declaration affirming that Serbs, Croats and Slovenes constituted one nation and demanded their union in a constitutional, democratic and parliamentary monarchy. This was followed up by a meeting of the National Council of Slovenes, Croats and Serbs

at Zagreb on 24 November 1918 representing the Slavs of Dalmatia, Croatia, Slavonia, Slovenia, and Bosnia which proclaimed the union of their territories with Serbia and Montenegro in one state which was later to be given the name Yugoslavia by King Alexander I. Whether this was done to reassert their independence from the Austro-Hungarian Empire, already confined to the dustbin of history at the end of World War I, or re-establish the Slavic connection is a matter of debate. Tito came on the scene much later, after he had successfully led the Partisans against Nazi Germany during World War II and established an authoritarian regime based on communist philosophy at the end of the war in what had been the federal state of Yugoslavia for over three decades. Whilst the four republics within former Yugoslavia i.e. Slovenia, Croatia, Macedonia, Bosnia-Herzegovina decided to separate from the Socialist Federal Republic of Yugoslavia, there is sufficient proof that this parting of ways was also encouraged by some important members of the European Union. Till mid-1991, well after the CIA had reported the imminent disintegration of the SFRY, US policy remained wedded to its historical stance of encouraging Yugoslav unity, in part out of deference to Gorbachev who was facing much the same effect of centrifugal forces in the USSR. President Bush warned against suicidal nationalism at Kiev on 1 September 1991 and initially refused to recognise the breakaway republics but eventually fell in line with his NATO partners. The question that arises now is will they let the same happen to the autonomous provinces within Serbia. The media blitz is already on against the Serbs who have been repeatedly branded as butchers even by those who not very long ago gas-chambered six million Jews and killed millions of others in a totally unnecessary war started by just one man. Use of Napalm and Agent Orange in Vietnam did not infringe Vietnamese human rights, nor for that matter the slaughter at May Lai ever happen according to another member of NATO.

Mixing history with current events is always seen in bad taste. But might one ask, will the peace-weary commanders of NATO be willing to do the same for Kurds as they are happily wanting to do for Kosovars on the dictates of a President who wants to make history but not read it. Are Serbs the only people given to savagery and human rights violations as the western media will have us believe? Then what about Turkey against Kurds and Cypriot

Greeks, China against Tibetans, Russia against Chechens and Indonesia against East Timurans et. al. The Kosovars' right to their freedom is no more than any of these other people. Yet no one is willing to take up their cause as these have only limited chances of success. Currently Yugoslavia seems an easy option because all those who want to make an impact on the world stage can find no better way to do it than teaching the Serbs a lesson.

The KLA, literally armed to the teeth, is also in no mood to come to the negotiating table unless Serbia withdraws its forces from Kosovo, releases all political prisoners and holds the negotiations in the presence of international observers. Such brazen demands on an independent sovereign state by a terrorist outfit should normally be totally unacceptable to civilised societies, but it seems NATO and the EU are in no mood to oblige the Serbs and will force them to agree under threat of unleashing military force. Though not a very subtle attempt to re-write history, all one can say at this stage is that the American Secretary of State is woefully short on her history, but pretty long on histrionics. However this is no reason why the rest of the world has to sit back and watch the sordid drama unfold all over again. Serbs need moral support from right-minded people, nothing else. Fighting they will do, if they have to. International boundaries are still considered sacrosanct and it is hoped that these are not about to be changed at the behest of NATO commanders.

Conclusion

Many analysts have offered rather a simplistic explanation of the causes leading to the break up of SFRY and compared it to the USSR. They state that since both these federal unions ran very fractured societies held together by sheer force, their whole edifice fell apart the moment this authority was relaxed. There is however a subtle difference between the two. As brought out earlier Yugoslavia had a much larger degree of internal cohesion than the USSR because over 80 per cent of its people came from Slavic ancestry. Only their religious affiliations were acquired on the basis of which part of the country they inhabited. Those living in Slovenia and Croatia became Roman Catholics as they spent many centuries under the Austro-Hungarian empire. Those living

in the eastern part of the country, i.e. Serbia, Montenegro and Macedonia, continued to follow the Eastern Orthodox Church. Islam reached the country only in the late 14th Century with the Ottomans and gained a foothold in Bosnia-Herzegovina and Kosovo. Whilst the former are almost entirely Slav Muslims, the latter have a large proportion of Albanian element in them. Before the break up of SFRY, Muslims were 10 per cent of the total population, spread thinly all over the country but forming a majority in Bosnia and Kosovo. Whilst President Milosevic of FRY may be blamed for his overzealous approach in fighting to retain its federal character and seemingly losing it, the USSR abandoned millions of Russians, almost 17 per cent of its population living outside Russian borders in Ukraine, the Baltic states and Central Asia, entirely to their fate. Although Russia still participates in the meetings of the Commonwealth of Independent States (CIS), the problems of the citizens of Russian origin have invariably been put on the back burner. Since they are too thinly spread in the CIS to make a convincing stand, their's is a forgotten story. However the world is well aware of what the Russians did to Chechens when they raised their head against Moscow. NATO looked on as spectators and did not hold urgent operational meetings to plan military intervention. Why not, since they are ever so quick and concerned about human rights violations provided they happen outside of their own territories. USA is also a multi-ethnic, multi-lingual and a multi-religious society, where fortunately for them, ethnicity has no territorial dimension, except perhaps the Red Indian nation which was ruthlessly eliminated at the turn of the century. It is therefore much easier for them to-day to adopt a holier than thou attitude and pontificate to the rest of the world. Be that as it may, the Serbs may have lost their status in the SFRY but they are not about to do so in their own backyard no matter the cost.

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Former Yugoslavia



The Management of Change in the Military

LT GEN SIR SAM COWAN, KCB, CBE

Introduction

The UK is in the middle of a Strategic Defence Review (SDR) launched by the new Labour government. It is foreign policy led, not Treasury driven, and intended to produce defence structures that are properly resourced to enable the Armed Forces to carry out what is required of them in pursuit of British interests in the very different world that is still emerging after the end of the Cold War. This is not our first defence review. British Defence Policy has been claimed to be "a perpetual balancing act between a host of different and often conflicting factors, to take account of Britain's changing role in the world." Most have started from the need to control rising defence spending; and all have resulted in cuts in numbers or capabilities accompanied by claims that "smaller would be better" through better use of technology or other changes. Almost all have been followed by unexpected threats to security interests which points to the need for caution in carrying them through.

Review of Higher Organisation of Defence

Most of our reviews have examined the apparatus of the higher organisation of defence. A series of steps over the past 40 years has abolished single service ministries and progressively transferred power from single service chiefs to a central defence staff responsible jointly to the Chief of Defence Staff and the Permanent Under Secretary. Greater financial accountability has been given to commanders and civilian managers who now have the budgets and delegated powers necessary to produce the

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outputs required of them and are accountable for doing so. Defence agencies now extend this logic by placing executive functions under Chief Executives who are set key performance targets and given the authority necessary to meet them. Most of our support area is now in 47 Ministry of Defence (MOD) agencies, many of which are joint service.

Army Training Agency

In my previous post as Inspector General Training, my primary task was to form an Army Individual Training Organisation agency. Expenditure in this area had been out of control for some years mainly because my headquarters lacked the information with which to exert leverage over the Arms and Service Directors commanding the Schools where all the spending was generated. Placing budgetary authority in the hands of one Chief Executive and allowing the operational commander to set priorities for individual training within a limited budget delivered impressive efficiencies. The discipline of forming an agency allowed me to drive through fundamental reform in a relatively short period by focusing attention on core tasks, most notably on identifying customers; quantifying and costing their demands; and getting them to assume responsibility for how they could be met within agreed budgetary constraints.

Logistics Management

I have a number of agencies within my area at present. My two main subordinate budget holders are the Director General of Logistic Support (Army) who owns four agencies, including three defence agencies: the Defence Postal and Courier agency; the Defence Clothing and Textiles Agency; the Defence Transport and Movement Executive; and the Army Base Storage and Distribution Agency (ABSDA). The Director General Equipment Support (Army) (DGES (A)), owns two agencies: the Army Technical Support Agency (technical engineering advice) and the Army Repair Organisation Agency (ABRO) (base overhaul and repair). His equipment support managers, powerful and important figures through which I discharge one of my major responsibilities - the

maintenance and management of all British Army in-service equipment - are the key players in determining what should be provisioned and procured, and therefore what should be stored, held and distributed.

All of these agencies have been extremely successful in delivering better value for defence money over the three to five years of their existence, stemming mainly from giving one man clear direction and authority to deliver. However, the Strategic Business Analysis (SBA) that I launched shortly after taking over highlighted some shortcomings. Again, the centre was weak and the separate tentacles too strong and autonomous, without corporate integration of the processes contributing to my final outputs. Authority and accountability were not aligned. There was no clear boundary between my authority and responsibility for the material state of the British Army and that of the Commander in Chief: my Director Generals were apparently assuming responsibilities within Land Command and they did not have the authority to deliver. There was a lack of integration of effort in the four separate elements of the important and expensive area of equipment support. As a result, 80 per cent of my operating costs were within agencies but 80 per cent of my programme costs, more than half my budget, lay outside the authority and hence the accountability of agency Chief Executives.

Resource Accounting and Budgeting

Along with other UK government spending departments, the MOD is committed to bringing in a resource accounting and budgeting regime. This will integrate output costing and management planning into a single management regime in a manner which is consistent with good commercial practice. In many ways this is the most significant and challenging of all the changes that the MOD has confronted during the past 40 years, certainly as far as financial planning and control are concerned. Resource accounting exposes the cost of owning assets, but perhaps the key elements in this revolution are the focus on customer requirements and cost communication. Our cash regime gives us very limited visibility of the costs of our outputs in terms of our military

capability. Resource accounting will attribute the resource costs of our defence activities to our outputs: the military force elements of ships, brigades and aircraft. It will bring greater discipline to relationship between suppliers and customers and give us a clearer understanding of the cost of each output and how changing the allocation of resources might lead to a better mix of defence capabilities. This will not be comfortable, but there will be a parallel discipline on those who make judgements on defence resources and their allocation. For the first time, we should be able to present convincing and objective arguments showing the consequences of cuts in defence spending. It will be a great aid to improving financial discipline and accountability, including at Army Board level, when taking tough decisions on the priorities for resources.

To realise the full vision is a huge task. We have just introduced the basic accounting system to capture and analyse input resource costs and develop the initial planning and control structure. Even getting this far has yielded a number of highly significant benefits in the management of my own area. My SBA showed the corporate weakness of the organisation by drawing attention to the lack of visibility and control of the totality of business undertaken in my area, highlighting the need for a corporate framework of objectives, targets and performance assessment to achieve proper accountability. Focussing on customer requirements and cost communication showed the overriding need for a disciplined relationship between my organisation and the operational command I exist to serve, and to identify formally at every point of my interface with Land Command where authority and responsibility starts and ends.

Inventory Management

The exposure of the true costs of storing stock, and the interest paid on what is held does bring into sharp focus the size of our stores inventory. Our inventory is unjustifiably high for our current needs and I have set targets to reduce it by 30 per cent over the next four years which I will monitor through quarterly reports against key targets embracing processes which span my

organisation and cross many functional boundaries. These measures will not yield significant savings in the short term but in the longer term will enable us to close one or more major depots. Significant cash savings in the shorter term must come from reassessing how we calculate how much to order and when. This is a particularly complex area but the major initiative which I am running is to structure the main elements of equipment support on the basis of Multi Disciplinary Groups (MDG), putting under single direction all the expertise and resources needed for effective through life equipment management, thus aligning authority and responsibility with financial control. Each MDG will have a manageable span of control and clear accountability for a specific equipment or group of equipments.

Optimal Use of Resources

Whilst the MOD is different from a commercial enterprise there are many ways in which we can benefit from commercial experience. I am not running a business but I am running an organisation with many business-like features. I have been struck repeatedly by commerce's very clear measures of the success or otherwise of their business, none of which are open to me. My organisation must be judged ultimately by its ability to meet one very distinctive criteria: the ability to enable the British Army to fight effectively. Nevertheless we all have a clear responsibility to use our resources efficiently and this applies particularly to the support area if we are to maximise frontline hitting power within a fixed level of resources.

Conclusion

Our work in the areas I have highlighted has shown us the clear benefits of having better visibility of the totality of our assets and stocks – and a better appreciation of stock consumption and total costs. It has enabled us to move to a new relationship with Land Command which I would describe now as a shared responsibility based on a common and agreed understanding of costs and objectives. Perhaps most significantly it has changed the cultural outlook of my entire organisation and given an impetus to us all to make the substantial but progressive change that is

necessary from changing a support system that was tuned over 40 years to the needs of the Cold War, during which the British Army had to have everything immediately at hand to fight the massed armies of the Warsaw Pact, to one that meets the very different needs of today's defence environment.

Ministers are determined that our Strategic Defence Review will complete the adaptation of the British Armed Forces to the post Cold War world, to improve the deployability of our forces and our ability to maintain their logistic support. They are also seeking a substantial extension of joint service co-operation and the support areas have received particular attention in this respect. We are also looking at the better utilisation or disposal of defence assets, including both the large defence estate and stock holdings across all three Services, and there has been a fundamental examination of how we go about the business of procuring new equipment. As we await the outcome, the perpetual balancing act continues. We remain determined to ensure that the high reputation which our Armed Forces enjoy, both within the United Kingdom and abroad, is maintained. In a fast-changing world and at a time of continuing resource pressures this is no easy task but we take confidence from the fact that our Secretary of State's favourite quotation at present are those words which Mr Anan, the UN Secretary General uttered in Baghdad recently, "... you can do a lot more with diplomacy when it is backed up by firmness and force". Surely none of us could have expressed it better.

The Challenge of Downsizing Reducing Manpower Costs, Not Force Levels

COL GURMEET KANWAL

Towards A Lean and Mean Army

The great debate rages on. Almost every defence analyst in the country with or without a Service background is advising the Army, particularly in the post-Pokhran II scenario, that it must cut its force levels by at least 15 to 20 percentage points and utilise the savings to qualitatively upgrade its weapons and equipment profile. Editorial writers are convinced that the nation neither needs a million-strong Army, nor can it afford to maintain an Army of this size. A large number of serving and retired Army officers have also joined the chorus for downsizing. The major reason generally cited for advocating large-scale force reductions is that a Revolution in Military Affairs (RMA) is sweeping across the military landscape and that it is 'quality' and not 'quantity' which will matter on tomorrow's battlefield. The other hypothesis that is being put across is that the contours of future competition between nations are undergoing a paradigm shift from the narrow confines of the balance of military power to the domination of market economies and, hence, it is no longer necessary to maintain large militaries.

The much vaunted RMA comprises a synergistic combination of advances in computer-based command, control and communications (C4) systems and enhanced intelligence, surveillance and reconnaissance capabilities (ISR) (together termed C4ISR), spectacular developments in point-kill precision guidance technologies and information warfare (IW), encapsulated in potent, self-contained, small-sized, highly mobile forces, which are capable of delivering a massive punch quickly with devastating results. The central tenet of the RMA concept is that the rapid advances

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in technology will lead to dramatic changes in military tactics, doctrine, strategy and how forces are organised to fight future wars. While RMA capabilities would undoubtedly enhance the fighting potential of a force by several orders of magnitude, these are prohibitively expensive to create and maintain as these are capital and equipment intensive. At a conservative estimate, to qualitatively upgrade the potential of one Strike Corps to state-of-the-art RMA standards including C4ISR capabilities, an expenditure of approximately Rs 15,000 crores would be necessary over a period of five years - that is, an expenditure almost equivalent to one-third the present Army budget annually for five years. Whether India's defence budget, pegged at present at less than 2.5 per cent of the Gross Domestic Product (GDP), can sustain the heavy financial outlays required to achieve RMA capabilities is a moot point.

With the concept of ideological conflict confined to the dustbin of history, it is certainly realistic to aver that democracy and free market economies will shape the new millennium and that trade and commerce will dominate the competition between nations. Maximum government expenditure is likely to be incurred on infrastructural and social development and the economic upliftment of the people. However to extrapolate this hypothesis without any modifications to the Southern Asian region in general, and the Indian sub-continent in particular, is to ignore the geo-political and geo-strategic realities and the vexatious twists and turns of post-independence history. While China remains a long-term challenge and will continue to compete with India for economic and perhaps even military domination in Asia, Pakistan continues to wage a low-cost but effective 'Proxy War' against India by fuelling, aiding and abetting insurgencies in Jammu and Kashmir (J&K) and the North-eastern states and by exporting its peculiar brand of Islamic terrorism to destabilise India. The Kashmir imbroglio appears to be light years away from a solution and it does not require any extra-sensory powers of perception to predict that the present deployment of forces along the Line of Control (LC) in J&K and the Actual Ground Position line (AGPL) at Siachen Glacier will continue into the first few decades of the 21st Century.

The new Central Government-constituted Task Force to recommend a suitable structure for a National Security Council (NSC) has submitted its report recently. The NSC will be charged with the responsibility of undertaking a comprehensive Strategic Defence Review, including an analysis of the military, economic and political threats to the nation. This is a welcome development. It will enable the Services to fine-tune their force structure, organisations and the weapons and equipment profile necessary to conform with the requirements of the effective implementation of the Military Strategy which is likely to be evolved to counter the threats to the nation's security. Only then can the complex issue of the reduction of manpower in the Army be addressed in a rational and unprejudiced manner. However, there are certain imperatives which are constant and based on which savings in manpower costs can be effected. This article proposes to highlight these.

REDUCING MANPOWER COSTS

Ongoing Measures

A few months ago, the Chief of the Army Staff (COAS) unilaterally announced that the Army would voluntarily 'suppress' a strength of 50,000 personnel over a two years period to save manpower costs. This would result in an annual saving of approximately Rs 500 crores, an amount which can then be spent on modernisation. However, the nuance of the ongoing suppression need to be clearly understood. As suppression does not amount to a cut in the War Establishments (WEs) of units and formation headquarters, it is a temporary measure based on the premise that, given a six months lead time it can be restored by enhancing recruitment quotas and restricting superannuation. Given the known war waging potential of India's major adversaries and the greater transparency of the battlefield, the outbreak of sudden hostilities is improbable though, of course, not impossible. In the prevailing security environment, it should be possible to obtain an enhanced warning of up to six months before war becomes imminent. Hence, it is a calculated risk but one with the disadvantages of having to field inadequately trained recruits in battle if it comes to the crunch.

The suppression, amounting to an average of about five percent of the total strength, will be applicable to all the combat arms and most of the services units of the Field Force.

Another ongoing measure is the reduction proposed in the present manpower strength of the Non-field Force (NFF), based on a study carried out in 1996-97. These reductions will amount to approximately 20,000 personnel from various Category 'A' establishments, Training Centres, Pioneers, Army Headquarters et al. The aim here is to cut down the flab and improve the 'teeth to tail' ratio. However, the personnel saved by effecting cuts proposed by the NFF Study will not be permanently released or disembodied. They will be absorbed into the Field Force and utilised for new raisings which are on the anvil, or have been for some time, but could not be executed due to the non-availability of manpower. Most of these units comprise force multipliers such as Unmanned Air Vehicle (UAV) flights, Electronic Warfare (EW) units and re-organised Surveillance and Target Acquisition (SATA) regiments and batteries. Hence, the saved manpower will be re-deployed to qualitatively upgrade the Army's capabilities.

Options Available

Pending the outcome of the Strategic Defence Review, it would be prudent to assume that the present force levels in terms of corps, divisions and independent brigade groups and the supporting logistics elements, are based on the existing threats as perceived in the collective wisdom of the Ministry of Defence and Army Headquarters and are adequate and not open to any major reduction, particularly in view of the continuing large-scale commitment of the Army in counter-insurgency (CI) operations - a commitment that is unlikely to reduce in the foreseeable future. The fundamental challenge then is to find ways and means to maintain a force structure capable of dealing with today's realities and still generate sufficient resources to invest in modernisation and technologies crucial to tomorrow's battlefield. As expenditure on manpower accounts for over 50 percent of the Army's budget, all possible avenues need to be explored to save manpower costs without compromising operational preparedness.

The Territorial Army Review Committee 1995, headed by Shri KP Singh Deo, had recommended a substantial upgradation of the operational capabilities of Territorial Army (TA) units, combined with an enhanced role for TA during war and peace. Large-scale TA-isation of the Army offers a lucrative opportunity to save on manpower costs by reducing the number of regular Army personnel in service and increasing the number of TA personnel. TA units have performed creditably in the post-independence conflicts and are continuing to do so in CI operations in J&K and in the North-eastern states. Besides infantry battalions, field and air defence artillery TA units have existed in the past. The time has come to appreciate and exploit the true war-fighting potential of TA units.

An infantry battalion TA requires approximately 50 to 60 regular personnel; the rest are TA personnel. It should be possible to employ TA battalions in defensive operations to hold ground in depth in the second and the third tier of defences and, eventually, where permitted by the tactical situation, even in less threatened areas in the front line. It does not need to be emphasised that the present fighting capabilities and the equipment profile of TA units will need to be substantially upgraded. The TA units will have to be embodied for much longer than the present 45 days annually to enable them to be better trained. They will also need to participate in operational alerts and manoeuvres with troops.

Reliance on the TA-isation concept to effect savings in manpower will require the enactment of a new Indian Territorial Forces Act with stringent provisions for ensuring that the presence of TA personnel can be guaranteed whenever they are called up for service. Employers' accountability for sparing their TA employees will have to be ensured by making employers liable for prosecution. Perhaps the most important statutory change required to make the revamped TA combat worthy at all times would be to make TA service compulsory for all Central Government employees. This would require a political initiative, but one from which no nationalistic political party concerned with the nation's security is likely to shy away.

Another concept which has gained currency recently is that of placing whole formations in suspended animation. The logic is that not all formations and units are required to be in a state of immediate operational readiness at all times to ensure the territorial integrity of the nation since wars are now unlikely to break out virtually overnight and that there would normally be a long gestation period during which an endeavour would be made to resolve contentious issues through bilateral as well as multilateral or United Nations sponsored diplomatic negotiations. If this line of argument is accepted, it should be possible to downgrade the readiness standards of certain formations earmarked for offensive operations. The modus operandi would be that while the command and control elements and a core group of essential personnel are retained to maintain equipment (most of which would be moth-balled) and warlike stores and to ensure the upkeep of barracks, the remaining personnel would be reservists who would be called up only when war clouds appear over the strategic horizon. However, they would be periodically trained to hone their skills and to keep them in touch with their planned war-time trades.

The reader is bound to ask how such a fantastic arrangement is to be worked out. The solution is as simple as it is attractive. Colour service in the Army could be reduced to seven years, as it used to be in the bygone years. On release from the Army, the Other Ranks could be absorbed in toto by the Central Police Organisations (CPOs - BSF, CRPF, CISF, ITBP et al) and could continue to serve in the CPOs till superannuation as per the prevailing terms and conditions of service. On transfer to the CPOs, the Army should have a lien on their service as reservists for a period of eight to 10 years. During this period, the reservists would be put through refresher cadres, annual training camps and occasional courses. During national emergencies they could be called up whenever required to fill all the vacancies in their old units. Depending on the arm and the type of equipment held, the unit could be trained as a top grade fighting force in three to six months.

No matter how critically one analyses this proposal, it appears to be a win-win situation. The Army would have a much younger

profile; the Other Ranks would continue to have gainful employment till the standard age of superannuation; the CPOs would be able to induct trained Army manpower and would in due course develop the Army ethos and work ethic and the exchequer would save millions of rupees of the taxpayers' money by being able to cut down on pension bills. Doubtless, there would be stubborn resistance to the implementation of this proposal from various vested interests. They will have to be convinced, cajoled, prodded and, if necessary, browbeaten into submission!

The logistics chain of the Field Force is an area where perhaps some reduction in manpower numbers is still possible, combined with corresponding reductions in stocking levels (FOL, rations, spares etc.) and equipment -- primarily vehicles. With the development of better roads and other infrastructure in the border areas, massive investments in third line, and in some cases even second line, transport are no longer necessary. The Army can easily requisition thousands of trucks in a short period of time and can save on both manpower as well as vehicle costs. Obviously, as far as second line transport is concerned, 4x4 vehicles capable of cross-country movement will still be required. For these, the Government can float a Public Sector Undertaking (PSU) on the lines of the Container Corporation of India so that the vehicles can be used for commercial purposes during peace time and provided to the Army during war and for CI operations. Of course, there is a point up to which some risks can be taken while planning logistics support; beyond that, such moves become counter-productive. Decision making for reducing the cost of logistics support requires detailed cost-benefit analyses through a comprehensive study of the logistics requirements in each theatre of operations.

THE ROAD AHEAD

In the foreseeable future, the defence budget is likely to remain pegged at approximately 2.5 per cent of the GDP. Hence, the Army's share of the budget will remain stagnant at the present levels. Since revenue expenditure now amounts to nearly 95 per cent of the total Army budget, the availability of funds for modernisation and the replacement of obsolescent equipment shall

continue to be very low. In case the economy, and hence the GDP, grows at between seven and eight per cent annually and inflation can be contained to under five per cent, the defence budget may get an additional two to three per cent funds in real terms every year. The Army's share of such an increase may amount to about Rs 350 crores or so annually - an amount barely sufficient to pay for the purchase of about 40 Main Battle Tanks (MBTs) or 30 155mm Self Propelled (SP) guns. Clearly, modernisation can be effected only by generating funds internally through savings. As manpower costs account for the single largest chunk of expenditure, there is no option but to re-structure the present concept of the employment of manpower and to wield the surgeon's scalpel at the micro level, where it is still possible to do so.

Over the last few decades, numerous committees have gradually cut manpower from the WEs of fighting as well as logistics support units. Otherwise it would not have been possible to raise various new units and formation HQ without raising the manpower ceiling imposed by Parliament. Starting with reductions in the numbers of the erstwhile Non-combatants Enrolled (NCSE - barbers, EBRs, cooks, *masalchis*, *dhobis*, *safaiwallahs*), the cuts have gone on to include armourers, vehicle fitters, electricians and, in some cases, even radio operators. ASEC teams are continuing to look at WEs with a large magnifying glass. The ability of units to sustain cuts have been stretched to the very limit. Additional cuts can be imposed only at the risk of seriously jeopardising operational efficiency and unit cohesion. While it may still be possible to apply the surgeon's scalpel with careful precision in some cases, the days of hacking with a butcher's knife are definitely over.

That leaves only macro level re-structuring as a viable option to save manpower costs. Some of the possible options have been discussed above. While these appear to provide at least some answers, they also have a downside and an element of risk integral to them. No nation can afford to be complacent with and to take unmanageable risks with its security. As the cliché goes, there are no prizes for the runners up in war - it is a gruesome affair and,

"God is on the side of the battalions with the bigger cannon." To afford the "bigger cannon" there is a need to save on manpower costs without cutting down on the availability of the required manpower for war. As long as this fine distinction is understood when the issue is debated across the length and breadth of the country, within the Army and the Government and in the pages of defence journals and even newspapers and magazines, whatever method is ultimately found will be based on a reasoned analysis. However, at this stage the road ahead appears to be uncertain, winding and unpaved. It will require political courage, military astuteness, a non-parochial approach and a singularity of purpose to pave well so that the Army can march into the future with confidence, well prepared to tackle the new challenges looming over the horizon.

NOTE TO CONTRIBUTORS

Articles on National Security issues for publication in the USI Journal, may be sent to the Editor in duplicate, typed in double spacing. Subjects should be covered in depth with adequate research and reference made to sources from where information has been obtained. The length of articles should be between 3,000 to 4,000 words.

Articles may not be returned unless accompanied by self-addressed and stamped envelope.

The Siachen Pioneers

AIR MARSHAL K C CARIAPPA, PVSM, VM (RETD)

This is being written as a tribute to the Officers and Men of 114 Helicopter Unit who call themselves the 'Siachen Pioneers'. The Unit was honoured a few months ago by the President when he presented them with the Colours. This accolade is in recognition of their outstanding performance in what is undoubtedly the most unforgiving, the most forbidding and the most difficult terrain in the history of military aviation.

Reams have been written about operations in the Siachen area, and miles of film have been exposed to bring into our homes the harsh reality of the Glacier. From time to time even our Parliamentarians have flown over the frozen wastes, and secure in the comfort and safety of their twin-engine helicopter, have commented no doubt on how serene everything appears. However, nothing, not even impassioned speeches in the Lok Sabha can truly drive home the stark facts till they are personally experienced. The heart-stopping challenges that are faced day in and day out by our doughty Air Force and Army personnel are as daunting as they are awe-inspiring. They face hazards that we, who sit in the warmth and security of our homes far removed from the scene, can only imagine. They do so uncomplainingly, not because it is a livelihood, but because they genuinely believe in the vital cause of ensuring the integrity of our country. Their credo is 'all for one and one for all'. There is nothing they would not do for a comrade even if it is at the peril of their own lives.

This article is therefore being written to "blow the trumpet" on behalf of all personnel of this elite Air Force Unit with whom I have had the privilege of flying over a period of four days some years ago. How the Army lives and fights in this unforgiving environment, and how they cope with the elements and the enemy is a different

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story, a saga which should thrill the very essence of any young man who aspires to adventure, and to a spirit of daring. Their trials and tribulations in these inhospitable reaches is one of valour and sacrifice and cannot be adequately described, to which I as a former Air Force person cannot do justice.

The Siachen area is divided into the Northern, Central and Southern glacier regions each of which is different from the other in appearance, and in some ways in operating conditions too. What is common though is the unbelievably hostile physical, mental and topographical environment in which our men live and are expected to fight. The sub-zero temperatures, howling gale force winds and the rarefied atmosphere combine to sap the very will to live. One cannot therefore but marvel at their indomitable courage and feel humbled in their presence.

I first had the opportunity to visit the Siachen area as a member of a *Mi-8* helicopter crew in May 1981. We had been detailed to provide support to an expedition up the Northern glacier led by that great, intrepid mountaineer Colonel Narinder (Bull) Kumar. Their aim was to "show the flag" after Pakistan had laid territorial claim to the entire glacial region. Those were early times and because there were no helipads all supplies had to be air-dropped by helicopter from low altitude. In 1984-85 when Pakistan indulged in sabre-rattling it was decided to deploy the Indian Army to thwart any aggressive Pakistani adventurism. Large numbers of troops were inducted and there they remain to this day in what is the highest battlefield in the world. They occupy pickets in positions of tactical importance, patrolling icy wastes where each step is a laboured superhuman effort, and living in bunkers and arctic tents at heights of up to 21,000 feet under sub-zero temperature conditions. Movement of personnel and supplies is done either on foot or by the small single-engine *Cheetah* which lands on postage-stamp sized helipads. The larger *Mi-17* can only air-drop provisions because their helipad size requirements are somewhat larger. The *Cheetah* is the lifeline and the link for the Jawans whose only other communication with the outside world is through the radio network. Mail, small quantities of fresh rations and cooking or kerosene oil are all flown in. On the return leg, casualties caused

by enemy action, high-altitude sickness or through accidents are air-evacuated.

Till mid-1992 Kumar, Bila, Zulu and Bahadur were just names of helipads in the Siachen area where I was concerned. It was after my landings on Siachen that October that they took on a wholly different significance. I was able to truly understand what our Air Force and Army were up against. They were battling nature at its worst; inhospitable terrain, capricious weather and freezing climatic conditions everyday of the year. If the Air Force has a difficult time flying in and out of those helipads, then the conditions faced by the Army are many times more difficult and hazardous. In the four days that I was there I flew 25 missions with (now) Sqn Ldr Reen and Sqn Ldr Banerjee. Their names are synonymous with guts and professionalism of the highest order and I cannot find words of praise to do them and their colleagues enough justice. Flying over the glacier is an experience quite unlike anything I had ever experienced or imagined before. I must confess to my heart being in my mouth each time we were over it. I was acutely aware of the bottomless crevasses over which we flew, of any changes (all imaginary) in the sound of the engine, and of the slightest flicker of a needle in an engine gauge. This is definitely not for the faint-hearted!!!

The day would start with a 7.30 am take off from Leh to cross the 18,000 feet *Kardung La* the highest motorable pass in the world. The climb out after take off required all our attention as we flew over boulder-strewn narrow gullies and sometimes steep, nearly vertical slopes. There was no question of 'relaxing' because we were always fairly close to the ground and any malfunction demanded instant reaction to prevent the 'chopper' from crashing. Once the Pass had been crossed I would breathe a sigh of relief as we could now start the long shallow descent to Base Camp at the snout of the glacier where the River Nubra has its source. In summer, Base Camp appears unkempt, it is a dirty brown and is an environmentalist's nightmare because melting snows reveal the detritus of human habitation. But in winter all is a starched, stark whiteness with only rocks that are too steep to permit the accumulation of snow breaking the monotone. On landing at Base

Camp we would 'switch off', get the helicopter refuelled and take on a mere 25 kg of mail or other supplies for a designated picket. After take off and en route our destination, the colour of the glacier would change from the dirty brown to almost pristine, blinding white. We could see tiny deep blue pools shimmering in the sun, and look down the awesome, frozen, seemingly bottomless depths of forbidding crevasses from where there could be no rescue. From time to time we would fly over small columns of troops heading up the glacier to relieve their comrades. They would be 'roped' to each other as a precaution should someone stumble into a crevasse if an ice-bridge were to give way. These men would now spend the next few weeks of near isolation and suffer privations that are hard to imagine. After about twenty minutes of flying, the first indication that we were near our destination would be when the men there, on hearing our 'chopper' would light up smoke candles to indicate wind direction and its speed. The approach to land had to be perfect the first time, because in this rarefied atmosphere everything is critical - the angle of approach, the speed, the rate of descent and the weight of the aircraft. There is no margin for error. On touch down the engine revolutions would be decreased, the troops would scamper up quickly to off-load and within seconds we would be on our way back to Base Camp. Time is always of essence here. It is important to get in as many sorties as are possible because who knows what the weather the next day would be like. For the next sortie the load would be somewhat increased, this time to perhaps 50 kgs because we would be that much lighter having consumed some amount of fuel on the outbound and return legs. After four or five such missions we would switch-off to refuel during which time the technicians would check out the helicopter, and prepare it for the next few sorties. While this was going on we would refresh ourselves with steaming mugs of hot tea and some food. We would then lift-off again to fly a few more sorties before leaving the area by 1.00 pm. Because of topographical reasons, the valleys get extremely turbulent in the mountains. There are violent vertical currents that can toss a light helicopter like a feather in a storm and windspeeds that are in excess of the forward speed of the helicopter.

A few words about the helipads. These are located at heights

varying between 14,000 feet and 21,000 feet. They have been stamped down and hardened by the boots of innumerable troops who then cover the surface with wooden planks to provide the firm surface needed to take the weight of the 'chopper'. The helipads are some 15 feet square and when viewed from the air appear to be minuscule, which in fact they are. While coming in to land in the summer months, the helipad merges with the background if the approach angle is too shallow, but once touch down has been effected, one realises that the chopper is actually sitting on a 'table-top' some 15 feet above the surrounding area. Hence the necessity of the perfect approach, because the slightest error could lead to a catastrophic accident. A second attempt could always be made, but doing so is to invite the attention of the enemy who may then decide to open fire in the hope that a stray round could hit the 'chopper'. If the enemy is able to see the helicopter he can also use the shoulder-fired surface-to-air missile which has a very high 'kill-probability'.

Summer operations are always considered more hazardous than in winter because of the reduced engine power that is available to the pilot, especially in an emergency. Perhaps the analogy of driving a car whose engine is 'tuned' for driving in the plains and then is taken up into the hills will illustrate the point being made about the loss of power. Then, there are the numerous crevasses which criss-cross under one's route and from where the chances of rescue are remote should a helicopter crash into one of them. In winter, however, the situation is very different. The engine performs much better, and the helipad sizes seem to be larger too because the amount of snow has increased and has risen to the level of the helipad; even the crevasses disappear. Now the only thing a pilot must be careful about is something known as "white out". This phenomenon occurs on a cloudy day when the skies are grey and the earth and sky appear to merge because there is no contrast of bare rocks and boulders and ridges which stand out so clearly in the sunlight. Depth perception is impaired and a pilot must be careful not to get hypnotised because of concentrating too hard. The other constant threat is the enemy who will do his best to bring down a helicopter knowing it to be the lifeline for our troops and the important role it plays where their morale is

concerned. The 'clack-clack' of the rotor blades chopping through the refined air, and the unmistakable whine of the jet engine are enough for him to let loose a few rounds of artillery or mortar fire in the hope of a lucky hit.

This then is what our intrepid soldiers and airmen are confronted with in the Siachen Glacier. No amount of praise is enough and no paeans adequate to tell of their heroic deeds and acts of heroism. These then are the men whom a grateful Nation should salute and be proud of. Yet, and sadly so, they are forgotten once their job has been done. How true was that anonymous poet who said,

God and Soldier we alike adore
When on the brink of danger, not before
The danger past, both are alike requited,
God is forgotten and the Soldier slighted.

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Forgotten Soldiers of the Indian Army - The KCIOs

LT COL JASBIR S KHURANA (RETD)

Introduction

“**T**here are just a dozen or so of us KCIOs (King's Commissioned Indian Officers) left. We were the forbearers of the Indianization of the Army in India. Now we are a lost and forgotten breed”. This is what Lt Gen MS Wadalia, (“Wad”) the doyen of the KCIOs lamented. Wad, the oldest member of this exclusive but forgotten group, now nearly 90, retired as Deputy Chief of the Army Staff in 1964. The others alive today are Generals PK Kumaramanglam, K Bahadur Singh, UC Dubey, KK Verma, AS Guraya, Chand N Das and Partap Narain, Brigs AM Sherriff, Kulwant Singh Sandhu, “Bosco” Sankharan Nair and AS Kalha and Col GC Dubey.

The KCIOs were a category of covenanted officers introduced in the Indian Army at the end of World War I (1914-18). Till then the Army was officered entirely by British Officers and Indians were not given a covenanted status in the Army.

As a result of promises made by the British during World War I as well as the political pressure for Indianization of the Army, eleven Viceroy's Commissioned Officers were promoted and granted the King's Commission at the end of the War. By 1923, this figure had risen to 23. Some of these were sent for graduation to Royal Military College, Sandhurst. Amongst them was Field Marshal KM Cariappa, the first Indian Chief of the Indian Army. However, these promotions meant little as most of the persons promoted were at the fag end of their careers and could not aspire to rise much higher in rank before retirement. In any case these steps were totally inadequate for implementing the total Indianization of the officer cadre in the Army and, therefore, it was decided to induct 10 officers annually from 1918. At

this rate it would take many years - possibly a century to indianize the Army in India; and without being Indianized, India could not achieve self-sufficiency or even Dominion status. At this time neither the Navy nor the Air Force existed as part of the Armed Forces of India so the plan covered only the Army.

It was under these circumstances that the first few batches of Indians were sent to the Royal Military College at Sandhurst to be trained as officers. On completion they were to be granted the covenanted King's Commission in the Indian Army and thus came to be known as the King's Commissioned Indian Officers or KCIOs. A total of 95 officers were commissioned as KCIOs between 1921 and 1933.

The Military Requirements Committee - 1921

The wheels of Indianization of the Indian Army had been set into motion. The threat from the North, the Third Afghan War, aftermath of the Jallianwala Bagh massacre, the mutiny amongst Indian troops in Jullunder and Solan in 1920, the turmoil caused amongst Sikh troops by the Akali Babbar movement in 1920-21 had a cumulative effect resulting in the formation of the Military Requirements Committee called by Lord Raw Rawlinson, the C-in-C in 1921. The Committee proposed the eventual replacement of British by Indian officers, indigenous self-sufficiency, and broadening the base of all recruitment. They recommended a 25 per cent level of Indianization with an annual increase. This was not acceptable to Whitehall. Subsequent deliberations by the India Office resulted in a proposal by the Shea Committee which postulated complete Indianization of the Army to be carried out in three phases of 14 years each. If the first phase was successful, the second phase could be reduced to nine and subsequently to seven years. From the second phase onwards British officers would cease to be recruited for the Indian Army. The Shea Committee also recommended the establishment of an Indian Military College. Their recommendations were modified and it was agreed to Indianize six infantry battalions and two cavalry regiments. Lord Rawlinson also proceeded with opening a pre-Sandhurst institution in the old campus of the Imperial Cadet College with

a capacity of 27 cadets. The Prince of Wales, later King Edward VIII, formally inaugurated the College on 13 March 1922, it being designated the Prince of Wales Royal Indian Military College (RIMC), today's Rashtriya Indian Military College.

Setting up of the Indian Sandhurst

In the aftermath of the Third Anglo-Afghan War, there was need for increased troop deployment on the Frontier, but the political pressure in the Legislative Assembly demanded a reduction in deployment of troops and curtailment of defence expenditure. Nationalist pressure also increased for the establishment of an Indian "Sandhurst".

Consequently an Indian Sandhurst Committee was formed in 1926 under Lt Gen Sir Andrew Skeen with one British and twelve Indian members. This included Mr Moti Lal Nehru and Mr MA Jinnah. The Committee found that in the previous eight years against 83 vacancies for Indians at Sandhurst 44 had passed successfully. With boys from RIMC joining Sandhurst, the results had improved considerably. The Committee recommended that vacancies at Sandhurst be increased gradually to 20 per year till the Indian Sandhurst was established - which it was in 1933. An option for training at Royal Military College, Woolwich for entry into arms other than infantry and cavalry continued.

The Indian Military Academy (IMA)

Although not wholly acceptable to Field Marshal Birdwood, the C-in-C, the political pressure applied at the Defence Sub-Committee at the Round Table Conference resulted in setting up an Indian Military College Committee to work out details of establishing the Indian Sandhurst. This institution, the Indian Military Academy (IMA), opened at Dehra Dun in the autumn of 1932. From this date Indians were no longer eligible at Sandhurst. The IMA's capacity was sixty regular Indian Army cadets and twenty for the Indian State Forces. The length of training was fixed at two and a half years. A Dehra Dun graduate was called an Indian Commissioned Officer (ICO). The commission was valid only in

India, and carried lower pay and allowances than those received by the KCIOs. The "Indianization" of the Army was extended from eight regiments to cover one-eighth of the Army. However, this increase was still inadequate to absorb the increased number of Indian officers.

Thus ended the first phase of Indianization of the Indian Army. This also marked the end of an era of the KCIOs. At one time, in their pristine glory they had ruled the roost; now just thirteen of them are left - icons of the military history our country. Forgotten soldiers indeed!

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Airborne Forces in the Second World War

SUB MAJ AND HONORARY CAPTAIN NILAKANTAN (RETD)

Introduction

With the invention of aircraft early this Century, a new dimension was added to the existing Land and Naval Power. Air Power using aircraft could use a force for vertical envelopment or special operations. Airborne troops of any country wearing the maroon beret no doubt have an elite image and are truly an integrated all Arms and Services affair. To be airborne like a bird had always been a dream of man and it was not too late that a new and fascinating dimension of troops and supplies landing from the air commenced at the beginning of this Century. This article gives an overview of airborne forces during the Second World War.

Early Developments

Towards the end of World War I, air supply to troops was attempted. The Russians first pioneered parachute training in the early thirties. In a manoeuvre in Kiev in 1936, foreign observers saw two battalions with light weapons land in eight minutes and occupy the town, which was their objective. These events created interest in other European countries and led to a number of experiments. The British commenced their experiments at Ringway near London. The Americans also began experimenting simultaneously at Fort Benning, Georgia. From theory they turned to practical training and began to experiment with mounting an airborne operation. The Germans, however, were the first to consider vertical envelopment as a valuable tactic and trained their elite parachute troops under the Luftwaffe (Air Force).

Germans

During World War II in the early 1940's, the Germans first successfully employed their parachute troops during the invasion of Denmark and Norway. Then in the West a team of gliderborne troopers neutralised the Eben-Emmel Fortress and the parachute troops attacked airfields and bridges in Holland, which hastened the early collapse of that country. In 1941 the German parachute troops seized the vital bridge over the Corinth Canal which was the bottleneck in the escape route of the British troops from Greece. Later, in May 1941, they made a massive airborne invasion of Crete and achieved their greatest success after sustaining very heavy losses. They captured Maleme airfield to enable the German JU 52s to fly in, a mountain division. Attacked by fresh troops with heavy weapons, the already exhausted British troops met their doom by the end of the month.

The Germans did not recover from their costly airborne invasion of the island of Crete. Afterwards their parachute troops were used only as elite ground forces throughout the War. 4th Indian Division had the experience of fighting the redoubtable German 1st Parachute Division, which had distinguished itself earlier in Crete, in Cassino (Italy) during February-March 1944. They fought valiantly and stubbornly against us in their steadfast defence of the bastion and earned respect for their bravery and chivalry. Due to lack of aircraft at that time the Germans made only limited air drops in Catania in Sicily and a final disorganised jump in their Ardennes Offensive in 1944.

The Germans lost air superiority after their pyrrhic victory in Crete. Hitler lost interest in further airborne operations. General Student, the first and the last Commander of the German Parachute Forces, suggested an airborne attack from the East on Suez Canal which Hitler rejected. He also suggested an airborne invasion of Malta like the one mounted on Crete. This could not, however, be done due to the lack of air superiority.

Japanese

The Japanese also employed parachute troops in their attacks

in the Dutch East Indies and other islands in 1942, but they were more of infiltrations than of exploitation.

Russians

The Russians made some landings during the first winter offensive in 1941-42. They used airborne troops in September 1943 in support of an assault crossing of the Dnieper loop between Kharkov and Kanev. The operation was a disaster because many aircraft were shot down and the troops were scattered. But the main reason for the failure was that the dropping zone was in the path of an advancing Panzer Grenadier division and other units moving up to the front.

Allied Forces in Europe and Africa

The British and Americans were not slow to learn from the Germans, especially after the success of the German parachute troops in 1940. In Reading near London and in Hightstown in New Jersey, USA, the British and the Americans established their parachute training schools, respectively, for training and developing drills for mass parachute drops. During ground training, the trainees were taught how to make a proper exit from aircraft, how to fall on reaching the ground, what to do during descent swinging under the canopy and so on. The static line, which was connected to a steel cable fixed to the roof of the aircraft inside, pulled open the pack allowing the parachute to open once the jumper was clear of the aircraft. After ground training and a short drop from a practice tower the trainees moved on to drop from a static balloon. The basket in the balloon had a circular hatch to simulate the one on the converted bombers used as Great Britain's para dropping aircraft. The initial jumps were made from the circular aperture on the floor of Valentine bomber aircraft. The C-47 Dakotas, with door exits, came to be used later. From experience gained during the early days the training equipment was improved. Only in near perfect conditions the sticks were found to reform after the jump. Even a slight wind scattered the men and the weapons containers over a wide area and prevented the formation of an effective force.

The very first airborne operation carried out by Great Britain was on 10 February 1941 when 38 men were dropped to attack Tragino Aqueduct in southern Italy. The target was attacked but the damage caused was negligible and it was soon repaired. About a year after this attack in Italy, the 2nd Battalion of the Parachute Regiment (1st British Parachute Brigade) won its first battle honours in the Bruneval raid on the French coast. It was a combined operation in which a company of 2 Para took part. The Germans were endeavouring to develop their radar system and they established an experimental station in Bruneval. The British wanted to capture the station, to dismantle the radar equipment and take it to Great Britain to enable British scientists to make a thorough examination and learn its secrets. The British made an elaborate and thorough plan after taking a series of photos of the Bruneval site from air. This Para Company with Royal Engineers and Royal Air Force (RAF) radar experts landed by parachute near the radar station on the French coast. This Operation was code named "Biting". The raid was successful at a little cost of three killed and six missing. The radar equipment was captured and the party returned with it in a submarine waiting to take them back to England. At the end of the same year (1942), the British parachute troops captured Bone airfield in Tunisia in their first battalion strength operation.

Like the British, the American parachute troops went into action in Oran in North Africa during the Torch landings. They made a demolition raid in El Djem in Tunisia. These operations revealed to them the shortcomings and indicated that sufficient time for detailed planning was essential. During the Sicilian Campaign, the Americans and the British made two operational drops which confirmed the earlier lessons. The American drops ended tragically, because their transport planes came under fire. 23 aircraft were shot down, among them some with troops still on board. As the para troops jumped, they came under fire and some were fired upon even after landing. The British used their 1st Air Landing Brigade and 1st Parachute Brigade in the operations near Syracuse, capturing the bridges at Ponte Grande and Primosole to hasten the advance of Montgomery's 8th Army.

Normandy landings on the 6th of June 1944 witnessed the greatest airborne operation involving an airborne corps - the British 6th Airborne Division, the American 82nd and 101st Airborne Divisions. 6th Airborne Division covered the left flank of the Allied landings. In this role it captured the Merville Battery and the Pegasus Bridge. The two American divisions were scattered during the drop. However, this worked out to their advantage. As there were no battalion concentrations anywhere, there were no targets for the Germans to counter-attack. The Germans had to send out many patrols to mop up the enemy and so they found themselves involved in a number of local fights.

In *Operation Dragoon* (landing in Southern France) the Allies achieved their accurate combat drop during the War. More than sixty per cent of the troops landed on the assigned dropping zones and successfully achieved their objective. Another large scale airborne operation involving an airborne corps (Lt General FAM Browning) took place in September 1944. This was Field Marshal Montgomery's greatest gamble. The Americans were opposed to mounting this operation. Montgomery convinced the Supreme Allied Commander, General Eisenhower, and made him approve his plan. This is what General Omar Bradley says. "Had the pious teetotalling Montgomery wobbled into SHAEF with a hangover I would not have been more astonished than I was by this daring adventure he proposed. For in contrast to the conservative tactics Monty ordinarily chose, the Arnhem attack was to be made on a sixty mile carpet of airborne troops. Although I never reconciled myself to the venture, I nevertheless freely concede that Monty's plan for Arnhem was one of the most imaginative of the war." The sixty mile carpet which Bradley speaks of was the one over which the British XXX Corps was to advance towards the northern outskirts of Arnhem. It was sixty miles long and was crisscrossed by many canals and water courses, (*Operation Market Garden* mentioned later).

In October 1944 the British Parachute troops dropped at Patras (Peloponneses in Greece) to overcome the German resistance with the help of the Greek Royalist guerrillas to enable 11 Indian Infantry Brigade of the 4th Indian Division to land there unopposed.

A British parachute brigade also dropped around the Port of Pireus near Athens to enable the British III Corps to land. The Germans did not put up any resistance as they were hastily withdrawing North from Athens to escape being trapped by the advancing Russians through Romania.

Operation Market Garden'

General Eisenhower placed at Montgomery's disposal the 1st Airborne Army Corps (Lt General FAM Browning) consisting of 101 US Airborne Division (Major General D Maxwell Taylor), 82nd US Airborne Division (Major General M Gavin) and British 1st Airborne Division (Major General RE Urquhart). When General Browning was given the orders before *Operation Market Garden* was launched, the General asked Field Marshal Montgomery how long he had to hold the Arnhem Bridge before link up by ground forces. "Two days" said Monty, "They will be up with you by then". "We can hold it for four", Browning replied, "But I think we might be going a bridge too far." An excellent book has been written by Cornelius Ryan with the title *A Bridge Too Far* and also a superb film has been made under the same title. Douglas C 47 sky trains and tow gliders were used, as also tow engine glider tugs of 1200 hp with a capacity of 28 troops.

After the operation, Monty wrote to General Browning, "There can be few episodes more glorious than the epic of Arnhem, and those that follow after will find it hard to live up to the high standards that you have set; so long as we have in the armies of the British Empire officers and men who will do as you have done, then we can indeed look forward to the future. In years to come it will be a great thing for a man to be able to say 'I fought at Arnhem'."

In *Operation Market Garden* daylight drops by 82 and 101 Airborne Divisions proved to be a spectacular success, contrary to the grim prediction of some planners. Men of 101 Airborne Division seized their objectives, though one bridge was found to be destroyed. The Guards Armoured Division pressed on towards 82 Airborne Division holding ground North East of Nijmegen. The 82

Airborne Division was driven back from the bridge over the Waal. In a joint attack by the British Guards Armoured Division and a brigade of 82 Airborne Division the Nijmegen bridge was captured. For the Americans the Operation showed that a daylight drop gave a greater concentration and the objectives could be achieved at low cost provided there was air superiority.

The airborne operation at Arnhem, however, ended in failure. Colonel General Student, the Commander of the elite German parachute forces, who was fighting in a ground role in Holland had got hold of the plans of *Operation Market Garden* which had been found on board an American glider shot down behind the German lines. The German C-in-C, Field Marshal Model, immediately alerted his Panzer Corps. The British lost surprise.

Burma Theatre : Chindits

In the Burma theatre, the Chindit Operation during 1944 demonstrated further what could be achieved with air superiority. With gliders and transport aircraft, the British placed the 3rd Indian Division (Major General Orde Wingate) behind the Japanese lines. The troops were supplied with stores to build a series of strongholds as a base for operations against the Japanese. The Chindit operations have been termed as wasteful by some historians, though they helped in gaining moral ascendancy. They are still studied by students of military history and are models of special forces. In the same year, the 50th Indian Parachute Brigade was stationed at Ukhrul near Imphal in a ground role. The Japanese attack on India came through Ukhrul and the 50 Parachute Brigade had to bear the initial brunt of the Japanese attack. By its dour and steadfast defence, this Brigade gave the vital time required for the 14th Army Commander to readjust his defences at Imphal and to fly in the 5th Indian Division in time to stem the Japanese advance. But for air superiority, the 5th Indian Division could not have been flown to the area at the crucial time.

It became evident to the planners, and commanders that big airborne operations were expensive. They came to the conclusion that despite the impressiveness of airborne attacks, many of the

objectives could have been secured by conventional means, at lower costs in terms of human casualties.

The Future Trends

Since the Second World War, many developments have taken place. Helicopters, improved and manoeuvrable parachutes and sails, sophisticated transport aircraft, supply dropping equipment and so on are now available. Paratroops have achieved spectacular results in airborne, heliborne, air assault and air landing operations since then. The Israeli airborne operations in the 1956 War at Mitla Pass followed by their raid at Entebbe, the Indian Para drop at Tangail in Bangladesh during 1971 operations, the Maldives operations of 1988 and the "Scud Hunt" role by Special Air Service (SAS) Group during the Gulf War - all have added golden chapters to the saga and heroism of airborne troops.

The future battlefields may not permit large strength stereotyped drops. With capabilities of air-defence systems, entry would have to be low and below radar coverage on multiple dropping zones. Paratroops would need to be trained for induction by helicopters. Nevertheless, the exploits of airborne forces of the Second World War would continue to inspire and highlight the importance of unconventional and flexible means to achieve victory.

The China Threat is Real

BRIG SUBHASH KAPILA

Air Marshal J Zaheer in his article "The China Threat : How Real Is It", published in 'Viewpoint', *USI Journal* (Vol. CXXVIII, No. 532, April-June, 1998), makes the point that "India has little cause for paranoia about China at present" and that "It is important for India's future that she does not get dragged into an arms race. The Air Marshal's observations are based on his premise that since China would be preoccupied with the Pacific front it would "severely inhibit the likelihood of adventurism to the South". By itself these viewpoints need not have been contended with. But when placed in the context of contemporary misperceptions in the country about China, when former PMs like Gowda and Gujral stated to the effect that there was no Chinese threat to India the day they were displaced as PMs, and when Editors-in-Chief of National magazines stated that since nothing had happened since 1962 there was no Chinese threat, counter-points are in order.

The assessment of Air Marshal Zaheer that China would be inhibited in adventurism to the South is reflective of the pre-1962 Nehruvian syndrome and needs to be guarded against, because the following facts and factors belie the same :

- (a) China is in no mood to settle the border issue with India, while with other flanking countries it has done so. The current Chinese Ambassador to India insists on defining the MacMahon Line as illegal.
- (b) Tibet along with Sinkiang has the potential of becoming very explosive for China. Tibet is a major pressure point for the Americans to settle scores with China in case circumstances so dictate.
- (c) The Chinese hierarchy continues to view India, along with Taiwan, Japan and Vietnam as potential threats to China.

- (d) China ever since 1962 has consistently sought to strategically limit India and prevent its emergence as a South Asian power by nuclear weaponisation and missile supplies to Pakistan and strategically coerce Myanmar into the Chinese embrace. Earlier insurgency in North-East received aid from China.

More ominous is the latest development where USA under the Clinton Administration has sought to co-opt China as the 'regional policeman' in South Asia. The security implications of this are significant for India when added to the Sino-Pak nexus.

India also needs to take into account the Chinese propensity to keep redefining its borders strategically in pace with current regional and international developments. With military power growing parallel to Chinese economic power, China is likely to exhibit greater assertiveness on border issues, militarily. This has been analysed very well in Dereck de Cunha's edited book *The Evolving Pacific Power Structure* published by the Institute of South East Asian Studies, Singapore.

Coming back to Air Marshal Zaheer's main premise that China would be too pre-occupied for adventurism in the South, the counter-points are :-

- (a) China's quasi-strategic alliance with USA and the bestowal of 'regional policeman' role on her by Clinton, releases China from Pacific pre-occupations.
- (b) Russia's strategic downslide reduces her security concerns in the Pacific.
- (c) The absence of any countervailing power, therefore, in terms of capabilities (even if intentions are discounted), enables greater assertion in South Asia and South East Asia.

Therefore, while paranoia must be avoided, vigilance is called for in building up our combat potential and conventional and nuclear deterrence in relation to the Chinese threat.



Letters to the Editor

Letters are invited on subjects which have been dealt with in the Journal, or which are of general interest to the Services.

Tampering with Military History

Recently I saw a film at the Habitat Centre titled, 'The Forgotten Army'. It had nothing to do with General Slim's Fourteenth Army originally called "Forgotten". The powerful documentary, directed by Kabir Khan, and narrated by Roshan Seth told the story of the Azad Hind Fauj's journey from Singapore to Calcutta. The three hours show, on 24 May - was special. Capt Lakshmi Sehgal, "Bharat Bhushan" and Col GS Dhillon, attended. Amongst the VIPs present were Admiral Bhagwat and his wife. An excellent production sponsored by Indian Oil, Bharat Heavy Electricals and others. It showed the INA's yatra in five white Gypsies replete with slogans. The travelogue started at Singapore's Ferrari Park, in the shadow of the Raffles Hotel, where the Indian Prisoners of War were handed over to the Japanese Army's F Kikan -- the Intelligence branch controlled by Major Fujiwara. In fact his presence on the stage, or that of General Mohan Singh the founder of the INA, were not mentioned. We jumped straight to Netaji's days. After a poignant scene of a girl recruit at Kuala Lumpur, the movie focussed on the journey to Penang from where the INA group hired a ship to Myanmar.

On arrival at Yanon, the Government did not grant them visa to travel in Myanmar. Hence they waxed eloquently about the Shwedagon and visited some houses used by Netaji as the Headquarters of the INA. They were flown out by an Indian Air Force plane.

Denial of permission for filming it in Myanmar, however, did not deter the producer from including scenes of Mandalay, Mayamo and Began, the site of the Irrawaddy crossing. Consequently, this powerful film wandered even farther away from the truth. I shall comment on only two episodes, of which I have first hand information :-


(a) The Irrawaddy river crossing on 13th and 14th February 1945 : I was then the staff officer engineer operations at Headquarters. 14th Army, and have recently been to the crossing sites as a veteran.

(b) The Irrawaddy river crossing at Bagan. The only genuine views in the film are of the thousands of pagodas on the river bank and of the 14th Army boat building yard; possibly obtained from the archives of the Imperial War Museum. This shipyard using teak from the forests, manufactured boats even Naval ships but had little connection with the crossing which was in fact on the river Chindwin, 200 miles away!

The remaining scenes of the crossing are patently wrong as the Irrawaddy here has steep banks, and "Sarkanda Grass" is not native to Burma.

The film shows Colonel Dhillon standing on a river bank, telling the audience, how he defended the river crossing with twelve hundred men of the Azad Hind Fauj. He had deployed a company of 450 under Lt Hari Ram at Nayango; another at Bagan, the third was in reserve. He dramatically showed the spot where the first shot was fired, killing a British Captain leading a patrol. He recounted how the very next day, in retaliation, enemy planes launched a carpet bombing raid; during which he told his men to take shelter in the pagodas. This was followed by an attack by a British Indian force. Confusion was caused due to some Burmese boats getting sunk, and exchanges in Hindustani from both sides. After which both retreated and occupied dug-in positions. Finally on the 14th of February, Lancashire Regiment attacked and his two machine guns fired till they ran out of ammunition - causing some four hundred casualties. But the British got a foothold and he (Col Dhillon) retired to Mt Topa-where he was joined by Col Sehgal.

The above highly exaggerated account is entirely different from facts as told to me by late Major Tatton Brown, an eye witness. It is reproduced here in verbatim (original in long hand is still with me).



"Our troops led by 33 Brigade of the 7th Indian Division reached Pokkoko on the right bank, and were immediately deployed at the pre selected crossing places of which the most important was at Nayango. General Messervy the Corps Commander had issued strict instructions, for a silent night crossing. Elaborate deception plan was formulated. Small boats with lanterns were launched five or ten miles above and below the actual point chosen. The night before the embarkation of the attacking force, complete silence was enforced and we were not allowed to test out the outboard motors covered in dust after their 1500 miles journey over mountain roads. A naval officer with an Aldis lamp went across in a canoe and signalled the all clear from the far bank. A company of South Lancashire were paddled across by Sappers under a moonless sky. Then a lone aeroplane flew slowly over an hour before dawn, intended to drown the noise of the outboard motors starting up. Two more companies followed in assault in boats, fitted with out-board motors. Only a few started. The Japanese garrison had been woken up by the plane and they waited for the boats to come within... range before they opened fire. None of them landed, several were sunk, others which broke-down in mid-stream were swept down and stranded on islands in the blazing sun some miles away, laden with dead and dying. Of course, the Sappers were blamed. "They let us down" was on every one's lips. But now that the gaff had been blown. General Messervy... ordered the Gunners to open up at 10 AM and I remember seeing the second wave of 4/15th. Pujabis, very slowly carrying their boats to the water each one would have expected the same fate as the first wave. It was all so different from the dash of a bayonet charge, and all those images of men going to war that I had been brought up on. These men were reluctant to die. They set off very slowly and deliberately - they all thought they would never make it. But they did. By that time, we had got the motors serviced and none of them broke down. The Japanese were still cowering in their slit trenches or killed by the bombardment and they were soon finished off by the Punjabis who landed successfully."

The historical section of India and Pakistan records the crossings by our six divisions, viz., the 36 Indian British, 19 Indian, 2

British, 20, 7 and 17 Indian Divisions. They were opposed by the 31st, 33rd, 15th and 28th Japanese Armies. The crossing of 7th Indian Division at Nayango was opposite the junction of the Japanese 15th and 28th Armies. After the great crossing by the 4/15th Punjab, only the catacom area on the far bank was left in the hands of the Japanese. They were eliminated by Napalm bombing, the carpet bombing as shown in the film.

To be fair to Col Dhillon ; he was describing INA's defence of the subsidiary crossing by the 1/11th Sikhs at Bagan. The historical section records. "This battalion had used country boats, for their patrol to cross six miles south of the main crossing at Nyango on the 11th February. Next day they established themselves on an island in the river. At 0400 hrs on the 14th February when B company of the Sikhs went across for a feint attack they were met by a hail of machine gun bullets; one man was wounded and they came back in the unwieldy boats." Surprisingly, the historical section, doesn't mention the INA's part in the defence of the crossing. Slim in his book *Defeat into Victory* talks of the white flag shown by them as their greatest contribution to the war!

The whole of 33 Brigade of the 7th Indian Division crossed on the 14th February; three tanks went over next morning. I wish people stop tampering with history - most of the audience appeared to swallow the film story "hook line and sinker".

The planting of the National flag at Kohima is not shown in the film; but the sincerity with which the claim is made brings to mind a picture of a fierce battle by the Azad Hind Fauj. For what actually happened, I am indebted to Lt General Naveen Rawley, who won his Military Cross at Kohima. He remembers that on a hill about a quarter to half a mile away; from the perimeter the tricolour was flown, some men sat around it and raised slogans, from time to time. It had little effect on the troops defending their country against the Japanese. The Royal Engineers history, Volume IX records : "On the 9th of April, a small party from 2 Field Company under L/Nk attacked with explosives the bakery area of a supply depot into which the Japanese had penetrated.

The explosion wrecked the building, killing many of the enemy outright. The remaining endeavouring to escape were mowed down by fire, the total bag amounted to 120."

A follow up article in the *Times of India* of 19th July captioned "A battle with destiny" by Rashmie Sehgal multiplied the untruth. The number of machine guns were doubled, and the 14th Army hold-up was stretched to two weeks. In a most unprofessional manner the writer invented Slim's memoirs and quoted "If he had known... he was fighting such a rag tag army... he would have launched a frontal attack." A highly dangerous statement - as the printed word is accepted as truth.

I sent the correct story to the Editor of the *Times* but doubt if he would ever publish it. What price freedom of the Press?



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The Betrayal of East Pakistan*

MAJ GEN S C SINHA, PVSM (RETD)**

In April 1971 Lt Gen Tikka Khan was replaced as Commander of Eastern Command in East Pakistan by Lt Gen AAK Niazi, known as 'Tiger' Niazi, the highest decorated officer in the Pakistan Army and the author of this book. Being in overall command of the Pakistan forces in the then East Pakistan during the 1971 Indo-Pak War and in the know of the course of events, the actual facts and the circumstances that influenced the Pakistani decision-making, Lt Gen Niazi is eminently well qualified and the right person to write on the Pakistani version of the campaign, which ended in the breaking up of Pakistan and the creation of Bangladesh. The author was in a unique position to contribute an authentic historical record of the campaign, which would have been of great value to posterity and to soldiers on both sides of the border. Unfortunately the truth appears to be the first casualty in this book.

In the Preface to the book, Lt Gen Niazi states : "It is an inherent trait of human nature to discard unpleasant memories." This is exactly what he seems to have done in his book. He then goes on to remark that "certain events have a deep imprint on our lives and their memories can never be obliterated." If that be so, then the General has certainly kept these memories to himself. Lt Gen Niazi seems to have attempted to convert "Defeat into Victory". While Field Marshal Slim, who wrote an excellent book of that name, had actually converted defeat into victory on the battlefields of Burma during the Second World War, Lt Gen Niazi has tried to achieve the same results by allowing full rein to his imagination in his book by fabricating a wishful course of events the campaign in Bangladesh is supposed to have taken. He writes that the Soviet Union actively joined the War on the Indian side. He accuses the Indian Forces of having used poison

* *The Betrayal of East Pakistan*. By Lt Gen AAK Niazi, New Delhi : Manohar Publishers, 1997, pp. 321, Rs. 450.00.

** Major General S C Sinha is the former Director of USI.

Journal of the United Service Institution of India, Vol CXXVIII, No. 533, July-September, 1998:

gas. Strangely enough such accusations were never made by Pakistan at that time nor by any other Pakistani authors, who have written about these events. Further, the great advocates of human rights, the United States of America, who were so sympathetic to the Pakistani dictatorship, would certainly have taken India to task had they made any use of poison gas. Lt Gen Niazi estimates that against his three weak divisions, India fielded more than twelve divisions. In fact, forces never exceeded more than seven divisions with a brigade plus under a Communication Zone HQ and barely a brigade strength of paramilitary forces operating in the Chittagong Hill tracts.

Although the author has given the course of battles fought in the various sectors of his command, he has kept these to the broader outlines highlighting only those aspects which show up his troops favourably. He would have us believe that the Indian attacks were all blunted by the heavy casualties inflicted on them and thus held up on all fronts. He does not explain the deep penetration lines of the Indian forces shown on the maps reproduced in his book. He also makes much of the fact that at the time of the cease-fire most of the major towns were in Pakistani hands, thus showing how successful his defence plans had been. He conveniently plays down the fact that these towns had been deliberately by-passed by the Indians and that the Pakistani garrisons of these towns had been cut off and bottled up in these defences. There is of course no gainsaying the fact that, under the extremely adverse conditions that they were in, most of the Pakistani troops fought bravely and well. But going by General Niazi's narrative it is difficult to figure out how the Indian troops made such deep penetrations as they had achieved on all fronts, how they managed to clear Sylhet or how they were able to cross the mighty Meghna River to threaten Dacca and force him to surrender.

It is but natural for a defeated commander to search around for excuses to mitigate his own inadequacies and those of his command. But this becomes inexcusable when all blame is shifted to subordinates, predecessors and colleagues by accusing them of incompetence, cowardice and even downright treason.

He has not spared such eminent colleagues as Generals Tikka Khan, Sahibzada Yaqub Khan and Gul Hassan. He also seems to believe in Goebbles' adage that misinformation if repeated often enough is likely to be more easily believed. In his book the author repeats *ad infinitum* the theme how he halted the Indian Army advance on all fronts, how well and successfully most of his commanders fought and how, but for the betrayal by his colleagues in West Pakistan, he could have beaten back the Indian forces and prevented the emergence of Bangladesh. It is a pity that, in his efforts at self-glorification, such a senior officer should have reproduced in his book self-serving Annual Confidential Reports and in his narration should have strayed so far from the truth. Readers of this book will, however, certainly sympathise with him that his Government should have chosen to deny to such a brave soldier his well earned pension for a defeat that after all was inevitable.

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Avoiding Nuclear Anarchy*

COL P K GAUTAM**

What is the fate of the nuclear arsenal left behind by the Soviet Union? This has been analysed in the past by the Centre for Science and International Affairs (CSIA) in two monographs - *Soviet Nuclear Fission : Control of the Nuclear Arsenal in a Disintegrating Soviet Union* (1991) and *Cooperative Denuclearization : From Pledges to Deeds* (1993). *Avoiding Nuclear Anarchy* (1996) completes the trilogy on this important issue.

The technology to build a simple bomb is more than 50 years old. There is one school of opinion which argues that only a nation-state with an organised technology and scientific base can make a bomb. Another school feels that with the openness and progress in technical cum scientific knowledge including declassification of old secrets, even a non-state actor like a motivated group of techno-terrorists with plenty of money can make a crude bomb, something similar to an Improvised Explosive Device (nuclear) which, even if it is a "fizzle or a partial detonation/blind", would be fifty times more powerful than a truck load of conventional explosives. The only complication is the production of fissile material which needs high technology state sponsored facilities. The answer lies in smuggling or buying from the black market.

Lax security of the nuclear weapons and fissile material in Russia is an unprecedented threat, more so due to strained economic, social and political events in that country. The authors have identified three challenges. Two refer to the need to secure and consolidate tactical and strategic nuclear weapons of the ex-Soviet Union. This has been achieved with remarkable diplomacy

**Avoiding Nuclear Anarchy : Containing the Threat of Loose Russian Nuclear Weapons and Fissile Material*. By G T Allison et al., Cambridge, MA : MIT Press, CSIA Studies in International Security, no. 12, pp. 295, \$ 15.00, ISBN 0-262-51088-X.

**Colonel P K Gautam is an instructor in the School of Artillery, Deolali.

and co-operation since early 1990s among the countries of former Soviet Union. Preventing access to loose nuclear weapons or weapons-usable material from Russia and the rest of the former Soviet Union states is the third challenge which has made little progress. The third challenge has been organised as four propositions in the book :-

(a) Chapter 1 - Risks of Nuclear Leakage. This chapter explains the enormity of the risk as Russia could have 200 tons of weapons-usable plutonium and nearly 800 to 1200 tons of Highly Enriched Uranium (HEU). These materials are moved, used or stored insecurely at dozens of widely separated sites. Also, as a result of START I and II initiatives, some 3000 weapons per year are being dismantled which increases the stock by 15 tons of plutonium and 45 tons of HEU per year. Besides, nearly 30 tons of plutonium is still being produced by nuclear power reactors per year. A simple implosion type of weapon would need maximum of 40 lb. of HEU or 20 lb. of plutonium. This can be carried manpack by a savvy smuggler who knows that the material carries no health risk, except if swallowed.

(b) Chapter 2 - Stakes : How Nuclear Leakage Threatens U.S. Interests. This part explains convincingly that egress of fissile material from Russia is a major threat which may well manifest in nuclear terrorism. Technical details of fission or fusion and thermonuclear bombs have been explained in an absorbing style. To the uninitiated reader, certain basic and fundamental doubts have been explained, like the mechanism of a gun type (Uranium) bomb inclusive of an artillery delivered system or an implosion type (Plutonium) bomb, critical mass, production of fissile material, basic nuclear physics and technology to produce weapons-usable materials.

(c) Chapter 3 - Response : Inadequacies of American Policy. The USA and Russia already have the Nunn-Lugar Programme in progress where American help is being provided in areas like Material Protection, Control and Accounting (MP C & A) which would be completed, partially, by 2002. An agreement to buy 500 tons of HEU over two de-

ades has also been reached. In spite of these measures, the authors blame both the parties for tardy progress. Psychological and political barriers by Russian Ministry of Atomic Energy (MINATOM) who refuse to acknowledge their weakness have made matters difficult. On the other hand, the US Congress has not treated this threat on priority and hence it remains low on fiscal support. The US has been criticised for being short-sighted and for paying insufficient attention to the falling quality of life of nuclear workers and their unwillingness to extend support in terms of "foreign aid" or "welfare" to the former Soviet nuclear complex of their employees. The authors warn that an IED (nuclear) may well explode on US soil and not an exotic ICBM, as visualised before break up of the Soviet Union. The arguments flow like a convincing account of a lawyer's testimony.

(d) Chapter 4 - The Challenge : A Response Commensurate with the Stakes. In conclusion, the authors have cautioned that instead of waiting for a catastrophe, vigorous reforms and modifications need to be exercised cutting across political, economic and social barriers, and bureaucratic lethargy. The relationship matrix between the Russian Government, MINATOM, US Congress and Clinton Administration has been analysed and a prescription offered by way of promoting programmes that directly address the problem of leakage. Finally the prescription is to agree on a comprehensive long-term management of fissile material which includes an international plutonium bank and a nuclear interpol.

The book, a masterpiece of convincing logic and necessarily repetitive, brings to the forefront an unconventional and terrible threat which in some quarters could be termed as over-rated. Nevertheless, the threat of smuggling may well be encountered in any country having a nuclear programme. The IED (nuclear) could be planted in any country and not only the USA, Russia or their allies. The initial two chapters are a must read for the defence officers, as a text book. The book is a must read also for the top security managers, bureaucrats, technocrats, scientists and defence officers. It is an excellent work, could have been graded flawless, save for the absence of an index.

The Economic Development of Modern Japan*

AMIYA KUMAR GHOSH**

Professor Shigeto Tsuru is one of those economists whose work defy ready categorisation. In describing his method in writing the articles collected in the volume, Tsuru says that his intention has been to "chemically mix" economic history with theory.

Japan's economic development in the later half of the Nineteenth Century is of great interest. Tsuru points to the pre-occupation of Restoration leaders with a 'reactive nationalism' which manifested itself in the following ways: first, it led to the policy of shunning the importation of foreign capital; second, it expressed itself in the eagerness to introduce and to assimilate the advanced arts of Western countries as quickly as possible; and third, it got reflected in an armament-oriented policy of industrial development, even before a single cotton spinning machine was imported or a single mile of railroad built. It also manifested itself in the speed with which the public education system was expanded in the earlier years of the Restoration. Early success of universal education in Japan was undoubtedly one of the most important factors in the country's rapid modernisation.

Tsuru is quite categorical that the agricultural class bore the burden of economic development in Japan. Between 1868 and 1880, the land tax was never below 70 per cent of the ordinary revenue.

The Japanese Parliament wanted a 'cheap government'. The Parliament was not in favour of a growing bureaucracy and suc-

* *The Economic Development of Modern Japan : Selected Essays*, Vol. II. By Shigeto Tsuru, UK : Edward Elgar Publishing Co., 1995, pp. 364, £ 55.00, ISBN 1-85898-023-2.

** Shri A K Ghosh is the former Financial Advisor, Defence Services (FADS).

ceeded in bridling the Government expenditure on its bureaucracy. As a result, inspite of growing revenue, rising prices and general economic expansion, total expenditure of the State remained more or less stationary between 1883 and 1894.

A paper prepared for Chinese Council of Economic Research during 1940-41 reveals that in real terms there was a curtailment of consumption in Japan by as much as 45 per cent between 1936-40 and the Japanese people had been living close to subsistence level. This is the price the country paid for the war efforts in China and for preparing for the Second World War.

One essay titled "The Economic Problems of Japan: Present and Future" (1964), analyses the factors responsible for the remarkable rate of growth achieved by Japanese economy in the post-war period. The factor which helped Japan in following its export-led growth was the exchange rate of yen. The exchange rate in 1949 was fixed at 360 yens to a dollar. It remained at this level for a long time, despite rise in labour productivity (by 12.2 per cent per annum) continuously over the decade of the 1950s. The prices remained stable. It left ample scope for reaping profits, ploughing back profits, investing in research and giving bonuses to employees.

The other factor was the technological innovations developed by advanced countries in the field of electronics, automatic devices, better chemicals and new scientific materials, which Japan could borrow. Japan was able to absorb these technologies because of good educational base. The Government adopted a positive attitude and embarked on a gigantic industry-financing programme. It also introduced enormous tax relief measures aimed at specific industries and investment programmes.

The negative aspect of the growth was the over-expansion of the credit structure which was primarily due to sharply rising prices of land. The money for land came from bank credit and the money received flowed into consumption. Transfer of land from one hand to another, at higher prices in Japan, has been costly for the Japanese economy without creating any new product. The

net cost involved in the economy might be small, but what was an apparent cost for the economy was a real cost for industrial firms. To that extent, they lost the competitive advantage. Inordinate proportion which arose between price of land and the price of ordinary goods made it difficult to execute rational plan for urban development. Tsuru observed: "Foresight in this regard would have made it possible to work out a plan at rational allocation combined with equitable control over the price of transfer." This is a warning which should be heeded by all policy makers concerned with urban development in a developing economy.

The land boom had an effect on raising Japan's national income but did it increase the economic welfare of the Japanese people? It is often taken for granted that bigger the national income, the bigger is the economic welfare. "I have always doubted simple proportionality of this kind; but, having observed at first hand the process of rapid economic growth in Japan during the past decade, I have become convinced that a definite warning is now in order."

Tsuru gives the example of doubling of traffic policemen in Tokyo which had the effect of increasing Japan's national income. However, it was nothing but a reflection of lack of foresight in city planning and of the recklessness of drivers in Tokyo. "It is a paradox that an avoidable cost to the community of this kind is a cause for the expansion of community income." These kinds of expenditures should be treated as wasteful and, therefore, a burden on the community. Success of government policies and their implementation can be gauged by the extent to which these expenditures can be minimised.

Wavell in the Middle East : 1939-1941 - A Study in Generalship*

LT GEN SL MENEZES, PVSM, SC (RETD)**

This masterly study of Wavell's generalship covers a period of two years of intense operational activity, during which Field Marshal Wavell, as the Commander-in-Chief Middle East, at one point, was conducting no less than five campaigns simultaneously. Two of these campaigns, the Italian East African and the first North African, will stand out in history as truly great victories, and the campaign in Greece, in February 1941, as a source of endless controversy. The latter may well be the least known British campaign of World War II and certainly repays closer study even now.

Although this book is not a complete biography, the author an Infantry soldier and a former Assistant Professor of History, at West Point, has compiled material on Wavell's early years as a soldier and budding commander, showing how the experiences of his early years were reflected in his decision-making and shrewd perceptions during the period of his Middle East command. Wavell's robust personality endeared him to all those who served under him, regardless of rank and earned him the profound respect not only of his fellows, but also the enemy. His innate taciturnity, however, brought him into conflict with his wartime political master, Churchill (and later, though outside the ambit of this book, with Attlee, when Wavell was the Viceroy of India), who never understood the true greatness of the man.

The evolution of Wavell's military philosophy, generalship and professionalism has not been recorded before in such detail. In his research, the author has been able to draw upon official documents, now released into the public domain, which were not available to the writers of the earlier Wavell studies. This is in addition to his interviews and correspondence with a wide range

* *Wavell in the Middle East: 1939-1941: A Study in Generalship*. By Harold E Raugh, Jr, London: Brassey, 1993, pp.323, £ 25.00, ISBN 0-08-040983-0.

** Lt Gen SL Menezes is a former Vice Chief of the Army Staff.

of those who served under Wavell as staff officers and commanders, as also with some of those in the ranks of his armies. Despite his enormous achievements at one of the most critical periods of his country's history, Wavell (like his contemporary and friend, Auchinleck has been undeservedly relegated into obscurity, a gross historical oversight which this lucidly written, meticulously researched and completely objective book, endeavours to correct.

Though the ambit of this book is the Middle East, and not India and the South-West Pacific in World War II, they perforce must be mentioned in this review. There is an Epilogue (pp. 271-2) on these six years of his career. Shortly after his arrival in India in July 1941, for a short spell he had to wrestle with the problems of the South-West Pacific as the Supreme Allied Commander of the ill-fated American, British, Dutch, Australian Command (ABDACOM). The Japanese successes in South-East Asia found Wavell back in India Command till mid 1943, whereafter he was the Viceroy till March 1947. At this juncture one must not forget the sterling role played by Wavell in putting famine relief in Bengal, in 1943-44, on a war-footing. During this famine, when millions died, the British had largely chosen to ignore the sufferings of the people. Churchill had thought that Wavell would serve as a stop-gap Viceroy; instead Wavell proved that he understood the Indian subcontinent better than did Churchill or Attlee, who both failed to produce coherent policies, whereby the unity of the subcontinent could have been ensured after the Independence.

The author succinctly encapsulates, "The inevitable comparisons between Wavell and Montgomery have been made time and again, but they are not valid. Wavell was a Theatre Commander, Montgomery an Army and Army Group Commander, concerned with the operational level of command only. To pursue the comparison is futile... It is hard to find any other great historical figure to whom the British public owe so much and yet who had been given such scurvy treatment by the politicians, whom he had served so loyally and well, even when their views were in conflict."

To conclude, highly recommended, for in this study, the author has made a major contribution to military history, and to a balanced assessment of Field Marshal Wavell as a military commander in the Middle East.

Short Reviews of Recent Books

Beyond Boundaries : A Report on the State of Non-official Dialogues on Peace, Security & Cooperation in South Asia. By Navnita Chadha Behera, et. al., Canada: University of Toronto-York University, 1997, pp. 112, ISBN 1-895296-24-2.

The end of the Cold War, break up of the Soviet Union, rise of People's Republic of China as a major power, and spread of democratic governments have produced new pressures and opportunities in South Asia resulting in the emergence of a large number of organisations to look into tensions, unconventional security issues, environmental degradation, water resource management, illegal movement of people and goods and other bilateral state issues. The main organisations are - SAARC, NAM, Joint Business Councils, PHD Chamber of Commerce and Industries, Rajiv Gandhi Institute of Contemporary Studies, South Asia Forum for Human Rights, India-Pakistan Friendship Society, RIMC 'Old Boys' and Doon Old Boys Society.

The authors have gone into the working of some of the organisations and societies and interviewed about 250 academics, officials, business leaders, socialist activists and donors in five South Asian countries and analysed in depth their purpose, efficacy and legitimacy. The conclusion was that such organisations can play an important role to atleast reduce the tensions if not solve most of the bilateral issues particularly when the government machinery is not in a position to make headway. This aspect was proved during the recent visit to Pakistan of retired Indian defence officers on the RIMC 'old boys' net. Although bilateral issues were not discussed, the delegation came back with the impression that most of the Pakistanis are keen to have a lasting friendship because of old associations, identical cultures, the same language and the benefit that would accrue from bilateral trade.

A well researched book of interest to the academicians, research scholars, politicians and government officials.

-- Commodore R P Khanna, (Retd)

India. The Way Ahead. By Pran Chopra, et.al., New Delhi : Har Anand Publications, 1998, pp.162, Rs. 250.00, ISBN 81-241-0517-0.

This book has been published at a time when fundamental changes at the state, interstate and supranational levels are taking place. Especially important among the collection of essays in this volume edited by Shri Pran Chopra is that of Lt Gen K K Hazari whose main thrust is upon the need to change the way we think and act on matters pertaining to the national security. In the author's view, the overwhelming need is institutionalisation of the entire decision-making process and the creation of a national security set-up, which should cater for the following aspects:-

- (a) Be in tune with the functioning norms of our parliamentary democratic system.
- (b) It should be structured in a way that enables dedicated staff work by a multi-disciplinary cadre drawn from within and outside the Government.
- (c) The Ministry of Defence should be restructured to enable the higher direction of defence in an efficient manner.

As a first step, it has been suggested that the Defence Minister's Committee should be reactivated for assisting the Minister in evolving a comprehensive defence policy. In addition, a separate committee comprising the Defence Minister and the Minister of State for Defence, the Service Chiefs, the Defence Secretary, and the senior staff officer of the Defence Planning Staff, should also be established to take decisions on purely operational matters such as military strategy, etc. Other measures recommended include the granting of Government - departmental status to the three Service Headquarters, and the setting up of a Joint Chiefs of Staff in place of the present Chiefs of Staff Committee.

These measures would enable the evolution (or the adoption) of a focused military strategy. This would, in turn, enable the creation and fielding of "suitably organised and optimally structured forces that would coherently safeguard India's national interests effectively." Here, the immediate thrust must be to cover the following aspects :

- (a) Progressive development of both conventional and strategic military means to deter China.
- (b) Develop capability to undertake fast, hard hitting and task specific operations against Pakistan.
- (c) Expand the maritime capability to secure the Exclusive Economic Zone (EEZ) as well as to neutralise inimical foreign presence in the Indian Ocean.

At a time when India has embarked upon a Strategic Defence Review, and seems to be assertively articulating its interests in a post-Cold War, non-bipolar international system, this book is a welcome addition to the debate on the future of India during the next century. A stimulating reading for strategic thinkers and those connected and concerned about the national defence. A must for good libraries.

Dr. Kalyan Raman

Foreign Policy of Coexistence-India. By Dr J N Nanda, New Delhi: Ashish Varma Publications, 1997, pp. 130.

Professor J N Nanda, a scientist and a writer with a wide exposure to international events, evolves a strategy of foreign policy for India to adopt by exploring the internal and external elements that have a bearing on her inter-

national relations. The author has coined a new term "New Mahayana", derived from the philosophy of Mahayana, a popular form of Buddhism. He describes it as international peace: tolerance of all systems of thought, religions, economics and mutual overcoming of problems.

To achieve Mahayana, it is necessary to have nuclear disarmament, establish an international legal system and an international peace-keeping force. Nations should not live in isolation but pool in their resources and put them at the disposal of the UN. The UN should be strengthened and assigned more responsibilities for global security.

The emphasis is on co-existence of nations, a utopia, built on globalisation of trade and investments followed by a global culture and a global spread of secular and democratic values. The author has not only been successful in drawing a framework for a foreign policy for India to adopt, but has also broadly outlined a policy for peaceful co-existence of nations. The book will be of interest to those involved and interested in international peace and security.

-- P Tyagi

Indian Defence Year Book 1998-99. Ed by Lt Gen R K Jasbir Singh, Dehra Dun : Natraj Publishers, 1998, pp. 615, Rs. 950, ISBN 81-86857-01-X.

A reference book on Military subjects. Besides information on the three Services, their arms and equipment, it also covers the organisation of the Ministry of Defence and its adjuncts - the DRDO; Defence Production and Supplies departments, their related Public Sector production units as well as the Ordnance Factories.

The addition of three chapters on Israel, South Africa and the former USSR; as well as the chapters on Chemical Weapons Convention and the future of landmines is innovative. The author deserves praise for taking a broader view of defence.

The only nagging doubt is on the accuracy of information. The Preface itself starts with a blunder. In 1962, Nehru wrote to Bertrand Russell and not Bernard Shaw who was not alive. The CWC was ratified by India in September 1997 and not 1996. *Hatf-III* is referred to on page 75 as *M9* in disguise—which brings premier Indian cities like Ludhiana, Delhi and Mumbai within its range. Equating it to IAF's SS-250 (page 77) could be confusing. It would need a careful revision. In the highly secretive atmosphere it is difficult to give any information on the plans of the Government. All the same, the statement on the Advanced Jet Trainer (AJT) need not have been that woolly.

Addition of a page worth of information on our Param Vir Chakra (PVC) Winners would be desirable.

A useful book for background information.

-- Maj Gen Partap Narain (Retd)

A History of Chinese Civilization. 2nd edn. By Jacques Gernet, Cambridge: Cambridge University Press, 1996, pp. 801, £ 19.95, ISBN 0-521-49781-7.

"Study the past if you would divine the future". This Confucian quote aptly explains the value of this exhaustive presentation of a complex subject. Mystic China- the Middle Kingdom-is credited with a 10,000 years old 'scientific' civilisation. Recent excavations have yielded remains of material culture and precisely dated documents to support the claim that China was a good 500 years ahead of Europe in the Middle Ages.

Imperial unification and formation of a legalistic state of Han China came about in 300 BC. Under intellectual and religious fervour of Tang and Sui rulers, in the 6th Century, Indian mathematics, astronomy and financial institutions through Buddhist monks found entry into China. However, Taoism and teachings of Confucius continued to dominate Chinese thought.

Under Sung Dynasty, with the production of metal alloys, use of paraffin and explosives, new weapons of war were produced and siege-warfare adopted. Soon sappers appeared on the scene and the work on the Great Wall progressed against forays by 'barbaric' tribes, Turks and Mongols. The invention of navigational aids and advances in ship building enhanced trade in silk and ceramics. During Ming period, China became a major maritime power. Examination system is a Chinese innovation. Production of paper, development of printing machines and adoption of standard characters of Chinese script led to wide dissemination of knowledge.

Hostility to wealthy merchants and feudal lords and the power of peasant uprisings have given Chinese civilisation its own character. Periods of prosperity brought about neglect of the peasantry and disdain for the military, which time and again, enslaved the nation. Mongol and Manchu rulers not only drained off silver but also inflicted many indignities such as ethnic segregation and wearing of pigtails. Japan and Russia laid claim to north-eastern areas and European maritime nations occupied coastal areas to plunder its riches. The British attempted to make it a land of poppy eaters and crushed all 'Boxer' resistance against opium trade and imposed heavy reparations.

China has undergone a sea change during the last hundred years. Chiang Kai-shek's despotic regime was expelled to Taiwan after a bloody civil war and the People's Republic established in 1949. Mao's draconian measures under Cultural Revolution, the Great Leap Forward and China's wild territorial claims against its neighbours resulted in the withdrawal of Russian aid for development. After Mao's death social, religious and economic institutions were revived and China made impressive progress.

The study reveals that a strong China resorts to military adventure. Ming empire was one and a half times the present China. China is transforming but without denouncing its past. Only time will tell how it would behave!

Numerous illustrations, a 36-page Chronological Table and an elaborate Bibliography as well as a comprehensive Index compliment this book which is truly a Sinologist's delight.

-- Brig K Narendra Singh (Retd)

Economic and Social Development in South China. *Ed by Stewart MacPherson and Joseph Y.S. Cheng, Cheltenham, UK : Edward Elgar, 1996, pp. 315, £ 45.00, ISBN 1 85898 301 0.*

Ever since the Chinese adopted an open door policy of foreign investment and privatisation for their economic development, the world has been wanting to ascertain its effects because, till recently, Communist China had all industrial establishments under state control.

Close to Hong Kong, the Chinese selected southern China and Guangdong region as a model for liberalisation. Since the commencement of development in 1978, economic growth of this region has been very impressive. The productivity has increased manifold. The accumulation of wealth has created a large number of township enterprises which have flourished on the demand of consumer goods generated by the increasing savings amongst the rural population. The increased employment opportunities in rural sector have prevented migration of population to the cities.

The Chinese economy is affected by the development in South China. It is said "Shenzhen learns from Hong Kong, Guangdong learns from Shenzhen and the whole country learns from Guangdong." The unique location of this region and its connections with overseas Chinese communities has led to its development at a rapid pace. The take-off stage for Guangdong has been successfully completed and it is ready for the next stage of development.

The observations and analysis of various aspects of economic reforms should be studied in detail as there is scope for their application even under Indian conditions. The authors are to be complimented for doing a thorough job of compiling all aspects of reforms in the region.

-- Maj Gen Prem K. Khanna (Retd)

American Images of China 1931-1949. *By T. Christopher Jespersen, Stanford, CA : Stanford University Press, 1996, pp. 254, £ 30.00, ISBN 0-8047-2596-9.*

The book traces the formation of American images of China which, according to the author, were nurtured by a wide range of literary, political and business leaders, including Pearl S Buck, Franklin D Roosevelt, Wendell Wilkie, Joseph Stilwell, Clair Chennault and more significantly in the political field, by Henry R Luce, the powerful media baron and publisher of *Time* and *Life* magazines.

It transpires that the driving force behind the build up of China into a US model in Asia, was the American religious and political evangelism. This earlier American dream, envisaging emergence of a Western-oriented Christian China, was shattered by the Chinese in 1949 when they opted for communist rule under Mao. The revived American dream of 1972 envisages the emergence of China as a US - style democracy. Quoted in this book is Joseph Kraft's journalistic statement in 1972 - "China has been for American opinion a focus for narcissism, an occasion for striking self-adoring poses." The book concludes with a cautionary note that USA cannot mould China to her (US's) tastes. The Chinese people will determine their country's character.

A useful book on US-China relations and the images that determine them.

-- Brig Subhash Kapila

Red Flag Over Hong Kong : Bruce Bueno de Mesquita. *By David Newman and Alvin Rabushka, New Jersey : Chatham House Publishers, 1996, pp. 196, \$ 25.00, ISBN 1-56643-041-0.*

On 1 July 1997, with the 'new' Hong Kong having come into being, China now awaits the return of Macao by Portuguese in 1999 and the resolution of the problem of Taiwan to complete the process of national reunification. With the takeover of Hong Kong, the wrongs of the Opium Wars have been corrected.

Six million residents await with growing apprehension their future. They are used to an open society and market economy, which has bestowed on Hong Kong tremendous prosperity. China is known to govern authoritatively with no regard for human rights. Therefore the future of free press, academic freedom, free and fair elections and a free market economy in Hong Kong is uncertain.

The authors have tried to predict the future, not only of Hong Kong but also that of China, as that will obviously impact on the former. These predictions are based on a decision-making model, the data inputs for it being contributed by experts representing business, media, academic and political sectors of Hong Kong.

The arguments by the authors are lucid, persuasive and convincing. This well researched handbook will be extremely useful in understanding the turbulent future of Hong Kong and the equally uncertain and unsettled future of China itself.

-- Maj Gen Ram Nath (Retd)

The Air War in Southeast Asia : Case Studies of Selected Campaigns. *By Herman L. Gilster, Alabama : Air University Press, 1993, pp. 138.*

As the involvement of American military in the Vietnam War during the 1960's gradually increased, US air power was also committed to strategic interdiction, heavy bombardments, ground support missions in a no-win scenario.

io and logistic support. The escalation graph of this committal is suggestive of the adventure-to-desperation content of the American experience.

The case studies of successive operations, from "Strangle," "Linebacker II" to "Commando Hunts I to VII", project the achievements and failures of air interdiction against guerrilla type insurgents in jungles and swamps and even townships.

Appropriately supported by statistics of quantum and quality of air power, the weight of lethal payload and degree of effect achieved in terms of physical and morale disruption, the studies project many useful lessons.

-- Maj Gen S K Talwar (Retd)

The Price of the Past : Russia's Struggle with the Legacy of a Militarized Economy. By Clifford G. Gaddy, Washington DC : Brookings Institution Press, 1996, pp. 250, \$ 26.95, ISBN 0-8157-3016-0.

For nearly 60 years, before Mikhail Gorbachev came to power in 1985, the Soviet Union had the most militarised economy in history. This book examines the problems being faced in converting defence plants for civilian use.

The author, a research associate at the Brookings Institution in Washington has carried out extensive research often of unpublished official documents and has visited some of the Russian defence industrial centres. The remarkable feature of the Russian military industrial complex is the degree of concentration of employment. For example, the largest tank factory in the world is located at Nizhny Tagil in the urals region and employs more than 40,000 workers. The difficulties faced in converting from tank manufacture to a civilian market product have been brought out clearly.

The author has lucidly explained the reason for the shortage of Soviet defence equipment spares which we in India had experienced post-1990. The decline in Russian consumer goods output is well illustrated with a case history of clothing and textiles.

The Russian defence enterprises had priority access to skilled labour and scarce resources. They also provided a host of welfare services such as health care, education and housing. The author highlights that for some workers, even the failure to pay wages is not cause enough to leave their jobs simply because the world of defence enterprises is the only world they know.

A thought provoking book for the reader interested in the Russian arms industry and its future.

-- Gp Capt B R Pillai

Russia and Europe: The Emerging Security Agenda. Ed by Vladimir Baranovsky, SIPRI, Oxford : Oxford University Press, 1997, pp. 582, £ 45.00, ISBN 0-19-829201-5.

The era of Cold War witnessed the two power blocs attempting to outwit

the other by enhancing their military power even at the cost of economic development. Dictating terms on the philosophy of warring nations, they tried to provide for global equilibrium.

The main confrontation took place in the region where NATO and Warsaw pact countries supported each of their allies. Due to the communist rule and resultant Iron Curtain, most of the European nations were apprehensive of Soviet designs and intentions. The break up of the Soviet Union has changed the entire security agenda of the region. The security concerns of Russia currently are not external but internal development to enhance its economic status.

The book analyses in detail the whole range of issues involved in the emerging Russian philosophy, after the demise of USSR, on its relationship with the European nations. Each one of the chapters in the book deals with a particular facet of this relationship with expertise. The book must be read thoroughly to understand the problems involved.

-- Maj Gen Prem K Khanna (Retd)

Enlarging NATO : The Russia Factor. By Richard L. Kugler and Marianna V. Kozintseva, Santa Monica CA : RAND, 1996, pp. 287, \$20.00, ISBN 0-8330-2357-8.

The end of the Cold War, re-unification of Germany and the break up of the Soviet Union has led to the complete removal of confrontation in Europe between NATO and Warsaw pact countries. The resultant effect has been that East Central Europe has been left as a large neutral zone.

European Union (EU) and NATO are thinking in terms of extending their area of influence by admitting new members and extending to East Central Europe. It would initially include Poland, the Czech Republic, Hungary and Slovakia - the zone separating Germany and Russia to provide stability and promote democracy in the region. The West would like to avoid an enlargement that yields dangerous new frontiers with a hostile Russia or an unstable Eurasia to the East. They would have to provide a stable regional security system.

The Western powers feel that the enlargement is necessary and desirable to end the hostile setting of yesteryears. The turbulent setting of East Central Europe and opposition posed by Russia, which desires influence in the region, make the enlargement process to be fraught with dangers unless the process is managed with coherent policies.

Could NATO expansion prompt another 'Cold War' with Russia? Should NATO's commitment to enlargement be abandoned? If not, then what should be done? This book has examined the complex and controversial issue of enlargement of NATO, an issue that would decide the future of Europe.

-- Maj Gen Prem K Khanna (Retd)

The Defence Industry in East-Central Europe : Restructuring and Conversion. By Yudit Kiss, SIPRI, Oxford : Oxford University Press, 1997, pp. 237, ISBN 0-19-829280-5.

In 1988-90, the end of the Cold War and collapse of socialism brought a number of changes in the defence industries in East and Central Europe.

The author Yudit Kiss, an economist from Hungary, examines in depth the collapse and survival of industries in Poland, in the Republic of Czech and Slovakia and in Hungary. She interviewed 70 managers and employees and government officials responsible for defence industries to obtain an insight into the problems being faced.

The author attributes it mainly to sudden collapse of Warsaw Treaty Organisation (WTO) based military co-operation, withdrawal of support by the States and lastly the loss of WTO markets in the Arab countries such as Iraq and Libya. The choice then was whether to retain or relinquish the defence industries. The decision rightly was for the former.

The author analyses the strategies used for crisis management. These, in brief, were the development programmes at the enterprise level, revival of political lobbying and complete change of identities with a radical change in production profile and management. An export led policy was envisaged by the governments of the region to overcome difficulties in integrating with Western Europe.

A well-researched book with facts and figures. Of interest to the government officials, defence officers and those involved in the evaluation and purchase of defence equipment, the industrialists and research scholars.

-- Cmde R P Khanna (Retd)

Defence Doctrines and Conversion. Ed by Bjorn Moller and Lev Voronkov, Hants : Dartmouth Publishing Company Limited, 1996, pp. 161, £ 39.50, ISBN 1-85521-709-0.

The papers presented at the second conference of European Peace Research Association in November 1993, compiled in this book, focus on the cross-currents in Central European nations, the USA and China, in the aftermath of the break up of the Communist Bloc. Protracted East-West confrontation, a controlled economy and lop-sided armament industry had left former Soviet Union with large military-oriented manpower and outdated technology, besides a maze of internal socio-economic contradictions.

The opening chapter by Bjorn Moller gives a concise review of the prevailing impediments to formulating new strategies and military doctrines for peace, as also, to the process of industrial re-orientation. It also defines the wider areas for a "conversion". Other projections including case studies of unified Germany, Czech Republic and Hungary, besides armament and technology giants like the USA and China, provide an insight into the challenges and

contradictions posed to the newly independent nations of eastern Europe, as existing till 1993. Inevitably the transitional environment in these states, as also NATO and the European Union since 1993, have added to the uncertainties.

The projections in this book provide interesting background for the keen readers who want to understand the ongoing search for stability and peace in Central Europe.

-- Maj Gen S K Talwar (Retd)

Peace in Ireland : Two States, One People. By David Bleakley, London : Mowbray, 1995, pp. 199, £ 14.99, ISBN 0-264-67375-1.

On 10 April 1998 an historic 69 page accord was signed between the governments of the United Kingdom and the Republic of Ireland as well as the eight political parties active in Northern Ireland. The latter include the Unionist and Nationalist parties, whose seemingly implacable hatred and differences of religious identification and socioeconomic status have fuelled thirty years of violent strife, terrorism and counter-terrorism, and other "troubles" in and beyond the six countries of Northern Ireland. This Accord has received surprisingly little attention in India, despite the many lessons that could be learnt from it for modified application to some enduring conflicts on the Indian subcontinent.

A short but lucid account of the long and arduous process leading to the accord has been provided by David Bleakley in his recent book *Peace in Ireland*. He acknowledges the facts that the history of Ireland as the oldest English colony (since 1169) was often tragic; that partition of Ireland in 1920 into 26 countries given independence and six northern, industrial countries retained by Britain, solved neither the devastating communal divide in Ulster (Northern Ireland), nor the wider Anglo-Irish problem, and that those who have used violence in pursuit of political aims since 1969 have made no progress. Nevertheless, Bleakley (and others) worked towards a pluralistic Northern Ireland in which both the Protestant majority and the disgruntled Catholic minority could live harmoniously. His appendices document the segregation of the two communities, their stereotypical views of each other, and summaries of the major political landmarks in providing a better framework for the future. He provides chapters on some of the key political figures, the "lost" decade 1975-85, and the crucial Anglo-Irish Agreement of 1985. This laid the foundation for more than ten years of negotiations, governmental and non-governmental activity, and mediation by former US Senator George Mitchell (there are 40 million Irish-Americans as compared to the less than six million Irish in Ireland) leading up to the present-day Accord.

There are several striking features of this Accord. The Republic of Ireland has formally renounced claim to the northern countries; the British government will reduce security forces; all parties commit themselves to upholding ceasefire, decommissioning weapons and working with an independent international commission on the future of policing. Arrangements for electing an Assembly and

forming a multi-party government for Northern Ireland are specified. A new British-Irish Council, a North-South Ministerial Council, and six cross-border bodies with shared authority are being established to facilitate cooperation in many agreed-upon areas. The accord will be submitted to referendum on 22 May 1998.*

The book is valuable for information and from a historic point of view.

-- Prof Surjit Mansingh

Somalia : State Collapse, Multilateral Intervention, and Strategies for Political Reconstruction. *Brookings Occasional Papers.* By Terrence Lyons and Ahmed I Samatar, Washington DC : The Brookings Institution, 1995, pp. 99, \$ 11.95.

This book is an indictment of the international community, for failing to avoid the catastrophe in Somalia. The past decade has been painful for the Somali people and the various international actors, who attempted to deal with that country.

The 1969 coup brought General Siad Barre to power. After the country's war in 1977, with Ethiopia, Somalia suffered under a harsh authoritarian regime. Political institutions disintegrated and the resulting chaos and insecurity ensured the collapse of the State. Siad Barre was overthrown in 1991 causing social breakdown, violence, displacement and famine. The international intervention has brought nothing but misery to this tragic land.

This book concludes that the international community ignored the clear warning signs and missed the opportunities to prevent state collapse by diplomatic means. As a result, the destruction of the state accelerated, so did the difficulties in rebuilding a viable system. When the UN intervened militarily, the focus was on humanitarian aspects and did not tackle the core political and security aspects of the problem.

The book highlights the lessons learnt in Somalia, which should shape international responses in future cases.

-- Maj Gen Ram Nath (Retd)

Cambodia : The Legacy and Lessons of UNTAC. By Trevor Findlay, SIPRI, Research Report No. 9, Oxford : Oxford University Press, 1995, pp. 238, ISBN 0-19-829185-X.

This report pertains to the UN peacekeeping initiatives in strife-torn Cambodia, where Indian infantry battalions were deployed. The book is based on research conducted in Australia and Sweden, a field visit to Cambodia, a

* The book was reviewed prior to this period.

workshop in Ottawa organised by the Canadian Centre for Global Security (CCGS), and subsequent interviews carried out at UN Headquarters in New York.

The Cambodian crisis spans a period of two decades from 1970 until its termination in 1991, during which time over one million Cambodians perished. The book draws important lessons from these operations, perhaps the most important being the Paris Agreement and the Security Council did not provide the United Nations Transitional Authority in Cambodia – UNTAC – with a peace enforcement mandate. Was it because of 'other' big power interests? The presupposition of 'good faith' envisaged in Chapter 6 of the UN Charter appears to have been missing as manifest in the lack of co-operation and support of the parties concerned. This book lays great stress on negotiation, consultation and coordination and imparts important lessons for both political and military planners of UN peacekeeping, both at the UN and regional levels. It also highlights the immense difficulties faced by UNTAC at the political and military levels. As a result of the non-cooperation by the Khmer Rebels (KR) in the electoral process, there were frequent violations of the ceasefire, restrictions on the freedom of movement, firing on UNTAC troops resulting in casualties, obstacles placed in the way of troops deployment and so on. These aspects are well articulated. The threats of Japan and Australia to withdraw their contribution, during the difficult period of the elections, underscores the dangers and hazards faced by UNTAC in its efforts to usher in a democratically elected Government in this war-torn country. Yet, the election process was held in a free and fair atmosphere, demonstrating the potency of traditional peacekeeping and the sacrifices required to be made. These observations point to the pitfalls the UN peacekeeping troops are likely to face in the future as is now evident in Bosnia.

The report details the various pitfalls likely to be faced if quick decisions and its implementation are not forthcoming. Erskine feels that troops detailed for such operations must arrive within 48 to 72 hours of the passing of the Security Council Resolution. There must be a will among contributing nations to support the world body in its endeavours to maintain international peace and security. Unfortunately this does not appear to be the spirit in recent peacekeeping operations.

The report brings out forcefully, the importance of rehabilitation and reconstruction as a post-conflict exercise and as a vital component of peace-building.

Findlay brings out the vital co-operation of the military component of UNTAC in assisting NGOs, UNDP, UNHCR et. al., in the rehabilitation, reconstruction and re-integration projects of the peace-building phase. This is to be much appreciated as many NGOs like the Red Cross, have serious reservations on the military role in peacekeeping operations in such humanitarian programmes. An example of this was the attitude towards the Indian brigade in South Somalia.

That it was possible for the UN to intervene in the Cambodian quagmire underlines the vital fact that with the full support of the five permanent members of the Security Council, the world body can be an effective tool in the discharge of the mandate under its Charter. This book is worth reading by all those involved in conflict management issues. It is well compiled and edited.

-- Maj Gen E D'Souza (Retd)

The Evolution of UN Peacekeeping : Case Studies and Comparative Analysis. Ed by William J Durch, New York : St. Martin's Press, 1993, pp. 488, ISBN 0-312-10401-4.

Evolution of UN Peacekeeping, under the aegis of the Henry L Stimson Centre, provides for a serious look at the whole enterprise of peacekeeping from 1947 to 1991. It contains a policy report on the planning, training, technology and finances needed for peacekeeping and provides for case studies of twenty different operations conducted in different parts of the world.

The author provides the reader with an insight into the problems of UN peacekeeping. On the financial front the author brings out the necessity of stringent financial controls in the UN. The United Nations Interim Force in Lebanon - UNIFIL - in South Lebanon cost \$153.3 million for a strength of 5,850 in 1991; this represents 45 per cent of the cost of the UN peacekeeping in the same year. UNIFIL's experience illustrates the inherent danger in the longstanding custom of separate assessment for each UN peacekeeping mission instead of a single annual peacekeeping assessment from which all missions draw.

The lack of uniformity in training and equipment standard of nations participating in UN peacekeeping is a matter of concern too. Norwegians and Finns do not train, Sweden does not provide training but troops are all volunteers in units, specially trained for peacekeeping. There are differences in equipment as well. Nepal arrived in Lebanon in 1978 without sleeping bags and vehicles. Developed nations have all the comforts for their troops whereas troops from developing countries have to rough it out in the vagaries of nature. A glaring spectacle of distinction between the 'haves' and the 'have nots' can be discerned even in the united humanitarian efforts to peacekeeping.

The book, however, suffers from the lacuna of updating. Case studies have been analysed only upto 1991 and require to be updated. Overall, it is a useful book for a scholar interested in UN peacekeeping efforts and may provide background material for further research.

-- Maj Gen R S Nagra

Sea of Grass : The Maritime Drug War 1970-90. By Charles M. Fuss Jr., Annapolis Md : Naval Institute Press, 1996, pp. 326, ISBN 1-55750-276-5.

The book chronologically covers the battle of the US Coast Guard against

the drug smugglers during the period 1970 to 1990. It is based on the actual experience of the author with US counter-narcotics efforts and is replete with supporting documents, photographs, maps and figures. Even though classified and sensitive drug interdiction intelligence and operational reports have not been listed or described, his interview with the smugglers makes this book very interesting.

Sea shipment of marijuana to the US began in 1970s to grow in volume and sophistication until late 1980s. By 1990s, the sea interdiction forces cut the primary marijuana supply lines between the Caribbean basin and US Atlantic and Gulf waters, and later between South East Asia and Pacific Coast. Thereafter the flow of marijuana reduced to a trickle.

The author brings out that till 1973, the counter narcotics team was ill-equipped, in both resources and attitude, to deal with smuggling of drugs at sea. In the mid 70's the drug smugglers formed multinational groups with volume capabilities, and marijuana mothership emerged as the most important event of the period. The 'Sea of Grass' had reached high tide by 1978 with motherships ramming Coast Guard Cutters and violence erupting both ashore and afloat.

During 1982-83, a unified stand was taken by the US against drug trafficking. The Navy was given a clear-cut role in providing combat ships and aircraft for detection and enforcement. Confusion ensued among the smugglers who perceived the US Navy to be a threat to their activities, though only a fraction of the US sea-might was utilised.

By 1986 marijuana seizures at sea started declining as a result of effective interdiction tactics and in 1988, the management of drug war was a big political issue in the presidential campaign. The victory against grass boats was achieved after a prolonged war of tonnage attrition, all along the marijuana supply lines, by the US forces. However the author very rightly brings out that the drug war has to be won in the minds and hearts of our children.

The book would be of special interest to readers having maritime interests, and to enforcement agencies for drawing lessons applicable to us.

-- Capt. S Kulshrestha

A History of Western Political Thought. By J S McClelland, London : Routledge, 1996, pp. 810, £ 40.00, ISBN 0-415-11961-8.

Western thought dominates the world socio-political system. It has been found to be the most congruous theory linking groups and societies, encompassing humans of varied creeds, cultures and ethnicity, transcending geographical boundaries. The cognitive processes of political theory have been synthesised over the past two and a half millennia predated perhaps only by the pontificates of wisdom contained in Hindu mythological texts. To cover such a broad swathe of knowledge in one book is a monumental task accomplished by John McClelland, a political theorist of repute now teaching at the University of Nottingham.

Commencing with Plato, McClelland sketches the myriad forms Western political thought has taken in an inimically lucid style. Brief biographical portrayal of the main theorists from Aristotle to Oakeshott adds to the intellectual insights into the development of the main paradigms of the doctrines of 'Cosmopolitanism', 'Social Contract', 'Enlightenment', 'Liberalism', 'Marxism', 'Socialism', 'Fascism' and 'Conservatism'. The evolution, practice, promotion and banishment of each of these political etchings have been analysed in depth. While the writings of Plato and Socrates were synthesised by Aristotle, Christian cosmopolitanism curiously influenced by the Islamic world followed. The staid principles of sovereignty established rigid rules of governance until Machiavelli and Renaissance softened the polity to evolve the 'virtuous Republic'.

It was the growth of the school of Empowerment and Liberalism which turned the tide irreversibly in favour of the individual and modern day democracy. The human processes are ruled by thesis and anti thesis. Thus Socialism and Marxism followed and along with Liberalism and Nationalism complete the triad of broad political thoughts prevalent in the past half a century or so.

A dialectical exploration enlivened by an enticing, interactive style wherein the reader seems to be engaged in a virtual eclectic conversation with the great political thinkers of yesteryears rendering the book the flavour of a political thriller. However, a greater relational contextualisation with existing political thought processes and contemporary political theories would have enhanced its value, enabling adaptation of issues of relevance.

-- Col R K Bhonsle

Revolution and War. By Stephen M. Walt, New York : Cornell University Press, 1996, pp. 365, \$ 19.95, ISBN 0-8014-8297-6.

Walt's theory of the relationship between revolution and war is simple, notwithstanding that both phenomenon are individually complex and subject to 'complexification'. He disputes the popular approach as being simplistic, they being that war is attributable to revolutionary ideology, personalities or domestic politics. His own contribution he christens as the 'balance of threat theory'.

He differs from the neo-realist 'balance of power' explanation, by adding 'perception of intent' and 'offense-defence' balance to 'aggregate power' as the holistic determinant of war-inducing 'threat'. He theorises that the adversarial balance of threat that occasions war, has its origin in the revolutionary situation in the state subject to revolution.

As can be expected of a Professor from that ultimate bastion of realism—Chicago University, Walt has argued his postulates through case studies of the Russian, French and Iranian revolutions. The book is, on account of these, informative and instructive. It is also recommended for its rigorous academic approach that surprisingly serves as a stimulus for thinking on this and allied aspects of war.

-- Maj Ali Ahmed

The Politics of Warfare : The Great Powers in the Twentieth Century. By Stephen J. Cimbala, Pennsylvania : The Pennsylvania State University Press, 1997, pp. 245, \$16.95, ISBN 0-271-01598-5.

The Twentieth Century is often described as a century of total war - ranging from World Wars to countless Low Intensity Conflicts - and Stephen J. Cimbala has produced a first rate analysis of the relationship between war and politics in this troubled century. But this book is not military history *per se*, but a study on the nature of war and their political ramifications. However, it has a major shortcoming, in that, Stephen Cimbala has drawn mainly though not entirely on the experiences of the USA. Since World War II, America's performance at Vietnam can best be summed up to say that it was a lesson on "what must not be done", and its intervention in Grenada in 1982 was nothing more than an airlift operation. So the lessons that emerge are more about the political issues that dominated the debate in Washington and the corridors of Pentagon. Thus, the book highlights that the largest and smallest conflicts (*a la* Vietnam and Grenada) are the most subject to political and military distortion, whereas, wars of intermediate scope and state are more likely to be fought within a proper framework of civil-military relations; such as the Gulf War of 1990-91.

But what is rather refreshing about this work is that the author has fortunately broken off from the western obsession with the work of Carl von Clausewitz. Somehow almost all Western scholars continue to relate everything in the field of war and politics with Clausewitz's posthumous masterpiece : *Vom Kriege* (*On War*). Cimbala rightly says that the complex nature of 20th Century wars could not have been foreseen by Clausewitz, since the Prussian military theorist learnt his lessons from the Napoleonic Wars, and last wrote on the subject in 1827. A hundred and sixty years later, much has changed indeed.

While the two World Wars and even the Cold War had a similarity in the relationships between policy, strategy and weapons technology; wars over the past two decades such as in Bosnia, Rwanda and Chechnya have been driven by integration and human sympathy amongst other factors. So, what does this hold for the classical relationship between the dutiful soldier and his sovereign state. Here, Clausewitz's trinity of the State-the people and the armed forces-stands divided since the people and their army now fight to redefine the state.

But as the author is a seasoned observer of military strategy, his conclusions are of significance in the confused terrain of our post-Cold War world.

-- Maroof Raza

The Propaganda Warriors : America's Crusade Against Nazi Germany. By Clayton D. Laurie, Lawrence KS : University Press of Kansas, 1996, pp. 335, £ 27.95, ISBN 0-7006-0765-X.

While Hitler's Germany started a concerted propaganda offensive in 1934 to subvert public will and morale in European countries as well as in the United States of America, the latter took up the challenge as late as 1939-40.

A galaxy of American political observers, ideologists and intelligence experts commented on stray incidents of subversion of security and public morale. The Dickinson Committee Report 1934-35 and Ickes Committee Report 1939, besides other studies that were published, prompted only limited governmental reaction, like the Foreign Agents Registration Act of 1938. The collapse of Czechoslovakia and half-hearted resistance to Nazi onslaught in Poland, Netherlands and eastern France ultimately exhorted a positive, albeit disjointed, counter-strategy by America. The Office of the Civil Defence under Mayor La Guardia was set up. Donovan was appointed to head the Office for Co-ordination of Information in mid 1941. A year later the Office of War Information (OWI) and Office of Strategic Studies (OSS) were established. Mutual rivalries, conflicting perceptions and close-fisted interaction among civil agencies and army and naval intelligence were inherent in American response in the domain of psychological warfare.

Clayton Laurie has woven a fascinating story of the emergence and maturing of the American Trojan Horse into an efficient and effective weapon of war as well as her diplomacy in post-war era. Besides a critical appraisal of the principal starcast and the multiplicity of intelligence agencies, the author has thrown fresh light on the art and strategy of propaganda warfare as manifested in the American experience.

-- Maj Gen S K Talwar (Retd)

The Politics of Memory: The Journey of a Holocaust Historian. By Raul Hilberg, Chicago : Ivan R. Dee, 1996, pp. 208, \$ 22.50, ISBN 1-56663-116-5.

Raul Hilberg is Professor Emeritus of Political Science at the University of Vermont. The *Politics of Memory* is his autobiographical work. Most of his life has been devoted to the study of destruction of Jews by the Germans during Hitler's time which, in his view, had an intrinsic or latent structure. His research into the Nazi documents at the Federal Research Centre, USA, culminated into one of the most comprehensive analysis of the Nazi destructive machinery. He describes his literary work as more akin to a body of music composed by Beethoven or Bach.

The book is structured in seven sections which are crisp and curt. It, however, cannot be taken up as a piece of light reading. His anguish at people offering superficial comments or shamelessly using plagiarism in research work surfaces frequently throughout the book. His evaluation of Jewish resistance to Nazi destruction as negligible and German casualties as almost nil, has made him one of the most controversial of Jew historians. He has drawn tremendous criticism from all quarters despite the acknowledgement that his research work is monumental and extraordinary.

Suprisingly, the book was very well received in Germany and the new generation Germans have probed deeply as to why did their ancestors destroy the Jews. The book would be of interest to readers who have been following the travails of Jewish people.

-- Capt S. Kulshrestha

Operation Crossroads : The Atomic Tests at Bikini Atoll. By Jonathan M. Weisgall, Annapolis, MD : Naval Institute Press, 1994, pp. 415, \$ 33.95, ISBN 1-55750-919-0.

This book describes the events leading to the testing of the world's fourth and fifth atomic bombs at Bikini Atoll in the Pacific Ocean in July 1946. The ostensible reason for the atomic tests was to gauge their destructive effect on naval ships. Ninety three ships were placed at varying distances from ground zero in the target area. The effect of radioactivity on ship's crew was simulated by keeping animals (rats, goats, pigs etc.) on these ships. The two tests comprised of an atmospheric and an underwater explosion, and are described in detail. The tests were supposed to be the most thoroughly photographed moment in history.

The atomic tests at Bikini Atoll were remarkable in that they were witnessed by an international team of observers from eleven countries. One of the observers was a Chinese physicist who later played a major role in that country's nuclear weapons development.

Illustrated with 18 pages of photographs, some of them showing the blast effects on the target ships, the book is immensely readable both for the general reader as well as for those interested in knowing about the early history of the nuclear age.

-- Gp Capt BR Pillai

Commitment to Purpose : How Alliance Partnership Won the Cold War. By Richard L. Kugler, Santa Monica : RAND, 1993, pp. 611, \$ 30.00, ISBN 0-8330-1385-8.

During the last forty years, the democratic forces and communism had been engaged in a struggle in Europe. Communism collapsed and the West came out victorious. The author in this volume has explained how the West survived the darkest hours of the Cold War. Its instruments of success were coordinated planning, community building, economic partnership, a balanced security policy, and sound management of NATO's defence strategy and military posture.

The author has examined the NATO's performance through a multidisciplinary analysis of political set up, military performance and operations research. The author has offered some fresh and controversial perspectives for the future of NATO.

The book has been divided into six sections. Section 1 deals with the scope and methods of the study carried out by Rand and the Ford Foundation. Section 2 deals with the origins of Cold War, military build up, and nuclear interlude with particular reference to chinks in the NATO's nuclear armour and the lessons learnt. Section 3 deals with the strategic debate, the Berlin crisis,

the search for solutions of nuclear alternatives, NATO force's trends, and the dynamics of the NATO-Warsaw pact. Section 4 deals with US defence policy, strategy and the legacy of the 1970s: a decade of neglect. Section 5 deals with Reagan's foreign policy and defence strategy, European historical balance of military perspective and the end of Cold War. Section 6 deals with how the Cold War was won and the future of the political alliance with particular reference to the London and Rome Summits of 1990-91.

The book is of great value for those who are interested in modern European affairs following the tumultuous events of 1989.

-- Col P K Vasudeva

Twilight Warriors : Inside the World's Special Forces. By Martin C Arostegui, New York : St. Martin's Press, 1995, pp. 313, \$ 24.95, ISBN 0-312-15234-5.

This is the first U.S. edition of the book published in 1995 by Bloomsbury of Great Britain. It gives an overall view of the operations of the Special Forces worldwide, from the Chindits, across various situations in the Arab lands, Viet Nam through to "Get Norlega" in South America. Written in a readable, easy style, it contains a mine of information on Special Forces' exploits in various situations.

Of particular interest is the need for special characteristics of the personnel selected for such forces. Having been once associated with "Mad Mike" - a fellow cadet at the Royal Military Academy - I cannot but agree on the ruthlessness and streaks of other qualities required in recruits for "special forces".

The mounting of rescue missions - particularly against hijacked planes, like the exploits of the German GSG9 - rescuing suntanned beauty queens, is itself an operation well worth study by others interested in similar missions.

Highly recommended. Despite its high price, this book should have a place in defence libraries.

-- Maj Gen Partap Narain

Portraits of Discovery : Profiles in Scientific Genius. By George Greenstein, New York : John Wiley & Sons, 1998, pp. 232, \$ 24.95, ISBN 0-471-19138-8.

This book gives us a closer look at the life and work of ten scientists who made important contributions to modern science. The day to day difficulties faced by them, their work affected by the prejudices and conventional wisdom of the day, their sufferings or gains from government actions or apathy. The selection of the scientists covered in the book is ingenious. It covers individual scientists, scientists supported by nations and institutions, and also big science, where most scientists tend to become mere cogs in the wheel. The author has, however, definitely worked to a plan while making the selection and each selection is aimed at highlighting issues of importance to the present day science. Chapter One discusses the problems of gender related prejudices and also examines the role of the technician on the one side and the pure scientist

on the other. It also brings out how the great Indian scientist Meghnad Saha was unable to develop on the essential insight that was his, rather than that of Cecilia Paynes, because he was not able to exploit it to its fullest as his "isolation in India prevented him from obtaining the data". It is a telling comment on the need to understand the international interdependence of science. This is very relevant today when we have to consider the effect of populist but inadequately thought out decisions which may completely isolate us.

The chapter on Mr HJ Bhabha is extremely topical from the Indian point of view and it does bring out in high relief some of the attitudinal problems we may well have glossed over much to the detriment of Indian science. The discerning may see in this chapter an area of study that is inadequately attended by the Indian scientific community. It is a "must read".

The discoveries and the works of these scientists are awe inspiring and the manner in which they are presented is a tribute to scientific research and development. The book would be a welcome addition to the libraries of our schools, universities, our military training institutions and the feeder institutions of the administrative, foreign and scientific community.

-- Col A K Chawla (Retd)

Tales From My Army Days. By Lt Col Sampuran Singh Sandhu, New Delhi: Siddharth Publications, 1998, pp. 89, Rs. 175.00, ISBN 81-7220-118-4.

The usual run of books about their service days have so far been written by senior officers who have attained high ranks. They write either about their success in battle or their achievement in command or justify their actions in the case of failures. Others write to recapture their past days of glory in high ranks in order to compensate the frustration of being forgotten in their retirement. These high level books, which certainly have their usefulness, seldom touch on the common and ordinary events of everyday Army life. It is, therefore, a pleasant change to come across a book like *Tales From My Army Days* written by a middle rung officer modestly recording interesting events from everyday life from his service days in the Army to which most of us could relate.

Lt Col Sampuran Singh Sandhu brings out well the life in the Army at Regimental and unit level and the values created by the close bonds found in our units and especially in the fighting arms. His story about Ramzan, a Muslim waiter from West Punjab, who left his wife and family in Pakistan during Partition and insisted on migrating to India to remain with his Regiment, illustrates the extreme loyalties that can be fostered by our Regimental system. Some of his other tales bring out how the training and experience in the Army helps develop leadership qualities in our officers enabling them to take in their stride and successfully handle any difficult and odd situations they may be called upon to face.

The book is very readable, well written, though sometimes in Indian English, and makes interesting reading. It would set a very happy trend if more junior and middle level officers follow Colonel Sandhu's example and pen their own service experiences.

-- Maj Gen Samir C Sinha, (Retd)

The Autobiography of a Seaman. Vol II. By Thomas, Tenth Earl of Dundonald, London : Constable and Co. Ltd., 1996, pp. 488, £ 16.95, ISBN 0 09 475180 3.

The autobiography of Lord Cochrane chronicles the English sea dog in the Napoleonic era when the Royal Navy constantly engaged the French Navy in intercine warfare at sea, thus, preventing the French Army from invading England.

It was a fascinating era where aggression, innovation and skill at sea intertwined with eccentricity and romanticism. It was an era which saw the 'master gunners' of the Royal Navy supported by a press ganged crew, generally composed of riff-rafs and criminals, come out triumphant.

Lord Cochrane had established himself as a courageous sea captain for his exploits against the Spanish. He became a Radical MP and a fearless campaigner against incompetence and corruption. This is the theme of Volume I of his autobiography.

The career of Admiral Cochrane, given in Vol II, is perhaps more colourful and, in a manner, notorious not for accusing his superiors of timidity during the assault on the French in the Battle of Aix Roads but for getting embroiled in a big stock market scandal for which he was imprisoned. The crusty looking Flag Officer found a partner in the beautiful Katherine Barnes which made his uncle, the Honourable Basil Cochrane, cut him off his 'Will' as he had planned that Thomas, Tenth Earl of Dundonald, would marry the only daughter of an Admiralty court official and so resurrect his declining fortunes.

It will be difficult even for the Indian maritime historian to follow, understand or appreciate the ponderous language of this comparatively little known 'Admiral on The Red'. The hardback edition of some 500 pages has been laboriously compiled sans bibliography, as the psychology and the machinations of the Admiralty Sealords are alien to most Indian readers.

The autobiography of Lord Cochrane, unlike the very readable biography of redoubtable British Admirals such as Nelson, Beatty, Fisher, Collingwood, Cunningham and Woodward is perhaps destined to rest in peace and gather dust in one of the many shelves of the excellent library of the United States Institution of India.

-- Vice Admiral Mihir Roy (Retd)

The Correspondence of Alfred Marshall, Economist : Climbing, 1868 to 1890. Vol I. By John K. Whitaker, UK : Cambridge University Press, 1996, pp. 368, £ 40.00, ISBN 0-521-55888-3.

The letters contained in this book provide a comprehensive overview of the historical background of economic issues emerging in Britain during the life of Alfred Marshall (1842-1924), an eminent English economist and founder of the 'Cambridge School of Economics'. This volume is part of a three volume work presented chronologically. This volume covers the period during which Marshall established himself as a world-renowned economist. In the year 1890

his publication *Principles of Economics* established Marshall as the acknowledged leader amongst British economists.

This volume contains 332 letters of correspondence of Alfred Marshall, mostly to Herbert Foxwell and John Keynes-his early pupils, Frances Edgeworth-his supporter and to Rebecca Marshall-his mother. The letters give a remarkable insight to Marshall's character and concern in his struggles with his colleagues at Cambridge and elsewhere while attempting to project his ideas relating to economic, social and political issues. They also throw new light on Marshall's thought and influence in promoting teaching of Economics at the University of Cambridge.

The author's presentation is vivid and the book would be of immense interest to the students of Economics and those with keen interest in socio-economic matters.

-- K S Chowdhury

Escape From Laos. By Dieter Dengler, Novato CA : Presido Press, 1996, pp. 211, \$14.00, ISBN 0-89141-X.

A well narrated true account by the author, a navy pilot, who was shot down over Laos while on a bombing raid during the Vietnam War.

Though initially spotted, he was able to escape, but was ultimately caught and taken to a Prisoner of War Camp, living under inhuman conditions with bouts of Malaria, poor and insufficient food and frequent beatings and shifted from camp to camp, heading towards Vietnam. At the final camp, he along with Duane-an American and three Thai soldiers planned an escape. A daring and well planned escape, adequately illustrated by the sketch of the camp in the book.

Though they managed to escape, the Thais separated from the Americans and then started the real test for Dengler and his companions - the struggle to survive. With body covered by leeches and ticks, soaked in rain, shortage of food, without medical aid, inability to contact their aircraft flying overhead, they both became very weak and in order to avoid dehydration, drank water, at times, full of filth. Duane got killed by a villager when trying to steal food and Dengler was left alone.

To draw the attention of his own aircraft, a complete village was set on fire by Dengler. He was spotted finally rescued by a helicopter when he was just able to hold on to the rescue cable dropped by the helicopter.

The well narrated and extremely interesting book would inspire one to act boldly and with a strong will to achieve the impossible when caught under similar circumstances.

A very educative and useful book. A valuable addition to all libraries.

Brig Y P Dev

Astronomy and the Archaeology of Power : Sky Watchers, Shamans & Kings. By E C Krupp, US : John Wiley & Sons, 1997, pp. 364, \$ 27.95, ISBN 0-471-04863-1.

Dr Krupp is an expert on ancient astronomy and in this book he tells us how astronomical knowledge confers power. The relationship between power and the sky involves the concepts of sacred landscapes, mythic origins and cosmovision. The book is structured into ten chapters with titles like "Plugging into Cosmic Power"; "Centers of Creation", "Celestial Empires"; "It Pays to Advertise Upward Mobility".

He draws upon his experience of visiting ancient sites to build up the facts that the world was quartered in four parts, viz. North, South, East and West in practically all the ancient societies. He opines that sacred places that symbolised the universe helped to hold the kingdom together. Celestial objects instilled order in the world, as was apparent in celestial rhythms and seasonal changes. Seasonal rituals and ceremonial re-enactments of creation put societies into a cosmic loop, celestial power was cosmic power and appeared to guide transformation of nature. When centralisation of power takes place, the formation of an organised state emerges with the purpose of prosperity of a community and continuity of culture.

The book is richly illustrated and in-depth research has been carried out to explain the ancient symbols, rituals and rites with respect to the astronomical observations of those periods. The book is not easy to read for a layman and would probably be of interest to a student of ancient astronomy.

-- Cdr S Kulshrestha

"Deny All Knowledge" : Reading the X-Files. Ed By David Lavery, et al., London, Faber & Faber Ltd., 1996, pp. 233, £ 8.99, ISBN 0-571-19141-X.

The X-Files is a cult TV programme featuring the exploits of FBI agents Moulder and Scully in mysterious and macabre escapades. The show is quite a mix of a police drama and science fiction. This book is a compilation of essays, analysing the relationships of the two agents with each other, to their surroundings, their cases and their past.

The book has been immensely successful in dissecting very minutely, as to why the show is so popular even on the Internet. The chapters in the book provide for a comprehensive analysis of the effect of the X-Files episodes on the viewers, formation of their opinions and outlook. The authors have tried to explain the significance of the X-Files. They have delved deep into the psyche of the 'X-Files' to throw up some readily amazing explanations as regards its popularity over the years. The essays in the book also try to bring to light whether the 'X-Files' is a political phenomena or does it belong to a political era like the Clintons.

The book is complete and enthralling though it can become a bit tedious to read due to a large number of cross-references and sub-meanings of statements. All in all not a bad read.

-- Col A K Sharma (Retd)

Additions to the USI Library for the Quarter-Ending September 1998

(The books reviewed in April-June 1998 issue have been added
to the Library during this quarter but not shown in this list.)

S.No.	Author's Name	Title	Year
Africa			
1.	Europa Publications	Africa South of the Sahara (27 th edn.), 1998 <i>London : Europa Publications,</i> <i>pp. 1151, Rs. 13,714.00 .</i> <i>ISBN 1-85743-036-0</i>	
Biography			
2.	Jatava, D.R.	B.R. Ambedkar : Study in Society and Politics, <i>Jaipur : National</i> <i>Publishing House, pp. 223, Rs. 375.00</i> <i>ISBN 81-86803-30-0</i>	1998
3.	Prasad, Sharada HY (ed)	GP : The Man and his Work : A Volume in Memory of G. Parthasarathi, <i>New Delhi :</i> <i>New Age International (P) Limited</i> <i>Publishers, pp. 385 Rs. 500.00</i> <i>ISBN 81-224-1139-6</i>	1998
4.	Chatterjee, Rupa	Sonia Gandhi : The Lady in Shadow, <i>New Delhi : Butala Publications,</i> <i>pp. 222, Rs. 300.00</i> <i>ISBN 81-87277-02-5</i>	1998
Corruption			
5.	Gill, SS	The Pathology of Corruption, <i>New Delhi :</i> 1998 <i>Harper Collins, pp. 295, Rs. 295.00</i> <i>ISBN : 81-7223-302-7.</i>	
Development-Developing Countries			
6.	Mehrotra, Santosh and Jolly, Richard (eds)	Development with a Human Face : Experiences in Social Achievement and Economic Growth, <i>Oxford :</i> <i>Clarendon Press, pp. 493, Rs. 675.00</i> <i>ISBN 0-19-829076-4.</i>	1997
Global Positioning System			
7.	Clarke, Bill	Aviator's Guide to GPS, <i>New York :</i> <i>TAB Books pp. 235, \$ 17.95</i> <i>ISBN 0-07-011272-X</i>	1994

- Hinduism - India**
8. Frawley, David
(Vamdeva Shastri) *Awaken Bharata : A Call for India's Rebirth, New Delhi : Voice of India, pp. 294, Rs. 250.00 ISBN 81-85990-51-4* 1998
- Human Rights**
9. Subramanian, S (Dr) *Human Rights : International Challenges (2 Vols.), New Delhi : Manas Publications, pp. 325 (Vol. I) & pp. 449 (Vol II) (Total pp 774), Rs. 2200.00 (Set) ISBN 81-7049-068-5 (Set)* 1997
- India - Anthology**
10. Dallmayr, Fred and
Devy, GN (eds) *Between Tradition and Modernity : India's Search for Identity - A Twentieth Century Anthology, New Delhi : Sage Publications India Pvt. Ltd., pp. 374, Rs. 395.00 ISBN 81-7036-698-4.* 1998
- India - Armed Forces**
11. Krishna, Ashok
(Maj Gen) *India's Armed Forces : Fifty Years of War and Peace, New Delhi : Lancer Publishers, pp. 181, Rs. 395.00 ISBN 1 897829 47 7* 1998
- India - Army**
12. Sharma, Man Mohan
(Brig) *What Ails the Indian Army : Tip of the Iceberg—A Report to the Supreme Commander of the Indian Armed Forces, NOIDA : Trishul Publications, pp. 294, Rs. 295.00 ISBN 81-85384-25-8* 1998
- India - Culture**
13. Cama, Shernaz and
Mathur, Sudhir
Chandra (eds) *The Muse and the Minorities : Social Concerns and Creative Cohesion : International Seminar : Papers and Proceedings, New Delhi : The Steering Committee The Muse and the Minorities, pp. 413, Rs. 250.00 ISBN 81-87129-02-6* 1998
14. Bonner, Arthur *Averting the Apocalypse : Social Movements in India Today, Durham : Duke University Press, pp. 467, Rs. 854.00 ISBN 0-8223-1048-1* 1990

India - Elections

15. Rana, M.S. India Votes : Lok Sabha and Vidhan Sabha Elections 1998 (Poll Analysis, Election Data and Party Manifestos), *Delhi : B.R Publishing Corporation, pp. 445, Rs. 950.00* 1998
ISBN 81-7646-026-5

India - Fifty Years

16. Radhakrishnan, N and Vasudevan, N (eds) A Nation in Transition : India at 50, *New Delhi : Gandhi Media Centre, pp. 232, Rs. 300.00* 1998
ISBN 81-86626-01-8

India - Foreign Policy

17. Mansingh, Lalit et. al. (eds) Indian Foreign Policy : Agenda for the 21st Century (Vol.1), *Delhi : FSI & Konark Publishers Pvt. Ltd., pp. 466, Rs. 500.00* 1997
ISBN 81-220-0496-2

India - General

18. Chopra, P N, et. al (ed) India : The Way Ahead, *New Delhi : Har-Anand Publications Pvt. Ltd., pp. 162, Rs. 250.00* 1998
ISBN 81-241-0517-0

India - History

19. Chopra, PN (ed) A Nation Flawed : Lessons From Indian History *New Delhi : Vision Books, pp. 188, Rs. 280.00* 1997
ISBN 81-7094-297-7
20. Chatterjee, Partha (ed) Wages of Freedom : Fifty Years of the Indian Nation-State, *Delhi : Oxford University Press, pp. 327, Rs. 545.00* 1998
ISBN : 019564524-3

India - Internal Conflicts

21. Basu, Amrita and Kohli, Atul (eds) Community Conflicts and the State in India, *Delhi : Oxford University Press, pp. 287, Rs. 525.00* 1998
ISBN 0 19 564236 8

India - Japan Culture

22. Sankarnarayan, Kalpakam, et. al. Traditional Cultural Link between India and Japan During AD 8th and 9th Centuries, *Mumbai : Somaiya Publications, Pvt. Ltd., pp. 344, Rs. 650.00* 1998
ISBN 81-7039-224-1

23. Samal, Prasana K (ed)
India - Tribes
 Tribal Development : Options (Proceedings of a National Seminar, May 22-24, 1996), (Himavikas Occasional Publication No. 9), Nainital : Gyanodaya Prakashan, pp. 568, Rs. 850.00
 ISBN 81-85097-41-0 1998
24. Qasim, S Z
Indian Ocean
 Glimpses of the Indian Ocean, Hyderabad : Universities Press (India) Limited, pp. 206, Rs. 595.00
 ISBN 81-7371-129-1 1998
25. Natarajan, VC and Chakraborty, AK
Info-War
 Information War in the Defence Strategy, NOIDA : Trishul Publications, pp. 240, Rs. 295.00
 ISBN 81-85384-25-9 1998
26. Maitra, Kiranshankar
Insurgency - Nagaland/North-East
 The Nagas Rebel and Insurgency in the North-East, New Delhi : Vikas Publishing House Pvt. Ltd., pp. 210, Rs. 350.00
 ISBN 81-259-0447-6 1998
27. Gauhar, G N
Kashmir - Politics
 Hazratbal : The Central Stage of Kashmir Politics, New Delhi : Virgo Publications, pp. 268, Rs. 450.00
 ISBN 81-85870-11-X 1998
28. Sarkar, Bhaskar (Col)
Low Intensity Conflicts
 Tackling Insurgency and Terrorism : Blueprint for Action, New Delhi : Vision Books, pp. 160, Rs. 280.00
 ISBN 81-7094-291-8 1998
29. Liversey, Anthony
Military History - Leadership
 Great Commanders and their Battles. London : Marshall, Rs. 1150.00, pp. 200
 ISBN 086288-122-6 1997
30. Lawrence, Philip K
Military History - Warfare
 Modernity and War : The Creed of Absolute Violence, London : Macmillan Press Ltd., pp. 206, £ 40.00
 ISBN 0-333-67026-4 1997

Military History - World War I

31. Liversey, Anthony Great Battles of World War I, *London : Greenwich, pp. 200, Rs. 1,150.00* 1997
ISBN 086288-111-0

Mizoram

32. Lianzela (Dr) Economic Development of Mizoram, *Delhi : Spectrum Publications, pp. 204, Rs. 270.00* 1994
ISBN 81-85319-53-7

Pakistan - History

33. Vohra, Sahdev Fifty Years of Pakistan, *New Delhi : Intellectual Publishing House, pp. 116, Rs. 250.00* 1998
ISBN : 81-7076-26-10

Pakistan - Politics/Religion

34. Ahmed, Akbar S Jinnah, Pakistan & Islamic Identity : The Search for Saladin, *Karachi : Oxford University Press, pp. 274, Rs. 795.00* 1997
ISBN 0-19-577843-X

Reservation : OBC

35. Anirudh Prasad Reservational Justice to Other Backward Classes (OBCs) : Theoretical and Practical Issues, *New Delhi : Deep & Deep, pp. 339, Rs. 600.00* 1997
ISBN 81-7100-983-2

Security - Analysis

36. Buzan, Barry Security : A New Framework for Analysis. *London : Lynne Reinner, pp. 237, Rs. 817.00* 1998
ISBN 1-55587-784-2

Security - Demography

37. Polunin, Nicholas (ed) Population and Global Security, *Cambridge : Cambridge University Press, pp. 316, Rs. 675.00,* 1998
ISBN 0-521-63539-X

Security - Small States

38. Inbar, Efraim The National Security of Small States in a Changing World, *London : Frank Cass, pp. 127, Rs. 1003.00* 1997

Weapons

39. Lee, R G, et. al. Guided Weapons (3rd edn), Brassey's Land Warfare : Into the 21st Century, (Vol. 5), London : Brassey's Ltd., pp. 262, £ 29.95
ISBN 1-85753-152-3 1998
40. Norris, John. Rifles & Combat Shotguns : Assault & Sniper Rifles, Brassey's Modern Military Equipment, London : Brassey's Ltd., pp. 117, £ 15.95
ISBN 1-85753-214-7. 1997

WMD - Warfare

41. Norris, John and Fowler, Will NBC : Nuclear, Biological and Chemical Warfare on the Modern Battlefield, Brassey's Modern Military Equipment, London : Brassey's Ltd., pp. 112, £ 15.95
ISBN 1-85753-182-5 1997

Reference Books

42. Calhoun, David R (ed) Britannica Book of the Year, Chicago : Encyclopaedia Britannica Inc., pp. 920, Rs. 3000.00 1998
43. Chopra, PN (ed) The Collected Works of Sardar Vallabhbhai Patel, (Vol XII) (1 January 1947-31 December 1947) Delhi : Konark Publishers Pvt. Ltd., pp. 304, Rs. 500.00
ISBN 81-220-0509-8 1998
44. Turner, Barry (ed.) The Statesman's Yearbook : The Essential Political Economic Guide to all the Countries of the World 1998-1999, London : Macmillan Reference Limited, pp. 1815, £ 50.00
ISBN 0-333-69445-7 1998

Papers

45. NDC Papers* Emerging Dimensions of the Information Age : Impact on National Security (Part 1 & 2), NDC Papers 3/97 and 1/98, New Delhi : National Defence College, pp. 134 & pp. 119, Rs. 70.00 (each) 1998

*The entire Series from 1/95 to 1/98 have been purchased. (Total 10)

USI Correspondence Courses

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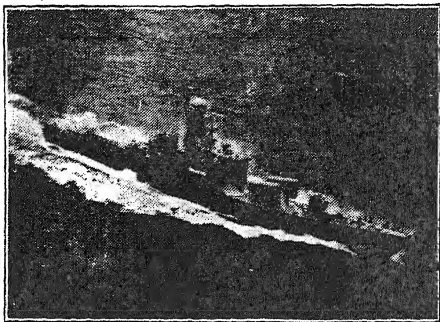
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